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ORIGINAL ARTICLES.

CLINICAL OBSERVATIONS AND RESULTS OF ELECTROLYTIC ACTION IN ESOPHAGEAL STRICTURES.[1]

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IN the early summer of 1888, at the meeting of the State Medical Society, held in Detroit, I briefly reported before the surgical section the successful cure, by electrolysis, of a case suffering from tumorous stricture of the esophagus. In May of the same year, at Cincinnati, before the surgical section of the American Medical Association, I clearly demonstrated, from a goodly number of tabulated cases, the great advantage of this powerful agent over other procedures in the removal of various neoplastic structures occupying the nasal, pharyngeal, and laryngeal regions; but up to that time no more interesting case presented itself to our observation than the one reported.

It will be remembered that the report caused considerable sensation in medical circles at the time, not so much from the exhibition of the patient herself—who, nevertheless, was a living monument of the practicability of the galvanic current—nor from the history or clinical facts brought out in the general discussion, but from the practical results and the novelty of the treatment employed. Indeed, it is not to be wondered at, especially when we consider the location and extent of the fibroid-tissue processes, involving, as they did, the greater portion of the middle part of the gullet, and which up to this time had defied every deliberate attempt at removal—to succumb at last to an agency so simple and painless, and comparatively harmless in the hands of one possessing knowledge of its application, yet powerful enough to induce destructive changes in their cell-like structures so as to produce their absolute destruction by absorption, thereby restoring the long-lost functional activity of the esophagus. Though nearly five years have elapsed since the woman first submitted herself to electric treatment, as a hopeless, physical wreck—from simple starvation—she is well in every respect to-day, not a symptom being present to indicate recurrence of the growth, thus proving conclusively the permanency and reliability of the treatment.

[1] Read before the Section of Surgery and Anatomy of the American Medical Association, June 7, 1892.

Since then I have added to the list six other successfully treated strictural cases, which I am about to report. These fully establish the claim that I made on that occasion, that no procedure has yet been presented which is as capable of combating the difficulties with as much safety and reliability as the influence of the galvanic current.

I do not, on this occasion, propose, however, to weary you with any "reiterated logic" on the subject matter, but to present actual clinical facts from carefully tabulated notes, so as to estimate as far as possible the value of the treatment employed. It is, nevertheless, well to bear in mind that the use of the galvanic current directly applied to any portion of the gullet was considered hazardous, owing to the close proximity of the pneumogastric nerve, until I clearly demonstrated from the first reported case, four years ago, that it was otherwise if the strength of current were intelligently regulated. Indeed, I remember well the admonitions which the late Sir Morell Mackenzie, of London, and Dr. Louis Elsburg, of New York, gave me several years ago for just attempting to broach the term electrolysis as a means of combating these abnormal conditions. They fully concurred in the belief that galvanism, however mildly applied to the esophagus, would be attended with danger, though they were aware that it had been employed with safety and good results to general neoplastic matter situated in the immediate vicinity of other vital parts, showing that even at that time, ten years ago only, they were entirely ignorant of the genuine chemical absorption of galvanism and the safeness with which it could be applied in close proximity to important nerve-centers, without disturbing their functions, even after a thorough knowledge of its behavior was obtained. Since then, however, we have made rapid strides in the general use of the galvanic current, and thoughtful study of its dosages in diseased tissues wherever situated. Indeed, the clouds of empiricism have gradually swept by, and though much yet depends on experience gained by experimentation, we can see clearly ahead, by the deep insight that enables us by our present knowledge of its subtle laws, to understand its hidden scientific meaning, and apply it accordingly.

Since it is the object of this paper to report in detail the several esophageal strictural cases that happened to have come under my notice, it will be in keeping with the subject to abstain at present from giving

the history of the development of the application of galvanic electricity and the scientific explanation of its operations. Neither do I propose to deal with the pathology of varied strictural abnormalities, but I shall simply present clinical facts as I carefully noted them while the several patients were under treatment. The first case then to which I shall refer is:

CASE II.—Mrs. H., a well-to-do lady of seventy years, a resident of Detroit, consulted me three years ago last Jannary for increasing dysphagia, after having gone the rounds of several physicians, from New York to Omaha. She stated that several years previously, having drunk in a hurry a very hot cup of tea, she experienced at the time, and for several weeks afterward, considerable pain and difficulty in swallowing solid food. This gradually subsided until she thought herself as well as usual, when to her great astonishment, six months after this unavoidable accident, she realized that the lumen of her gullet was gradually getting smaller. Though she experienced no pain, she began to find some difficulty in swallowing solid food. This dysphagia gradually increased from year to year, though dilatation was frequently practised, until she was induced to consult me, when I learned that she had not been able to swallow solid food at all for several months previously, and it was with difficulty that she could swallow even fluids. Indeed, she was delicate, very anemic and emaciated from want of nourishment, but was willing to try any treatment to obtain relief.

After obtaining the foregoing history I made a careful examination of the gullet, and, after much annoyance, particularly from retching, found that she was suffering from what I considered a fibrous stricture, an inch in length, situated about two inches below the cricoid cartilage. It was with great difficulty that I managed to pass a No. 6 (English gauge) esophageal bougie. After gaining an entrance, I resolved to try gradual dilatation again. After several weeks of faithful trial I abandoned it as a useless procedure in her case, for the irritation it developed appeared to increase the localized occlusion. I then concluded to try electrolysis. On January 28, 1889, an esophageal electrode, one quarter inch in diameter by half an inch in length, was introduced down to the commencement of the obstruction, where a current-strength of five milliampères was administered under gentle pressure. As no inconvenience was experienced, I gradually increased it to ten milliampères; and though decided impressions of the current were manifest, it passed easily by the stricture in sixteen minutes, without causing any excitement on the part of the patient. This same electrode was introduced again on the 31st of January and on February 3, when I resolved to try to pass an electrode, half an inch by one inch in length. This was accomplished, after several attempts, on the 12th of February, with a current-strength of fifteen milliampères. By this time she realized that a change for the better was occurring, for she could swallow fluids much better and partake of thick gruel. This electrode was introduced again on the 18th and 25th, and March 6th, when it was dispensed with for a larger one of five-eighths of an inch by one and one-fourth inch in length. This esophageal electrode was very easily made to pass the obstruction, and was only used twice, viz.: on the 10th and 15th of March; for the stricture appeared to yield to the slightest pressure, though even now she was not able, or rather I should say willing, to swallow solids. The last and largest electrode I used to electrolyze the stricture was one inch in diameter by two inches in length. It was applied in all ten times, for about ten minutes' duration, and under a current strength of twenty milliampères. But it was not necessary to have used it, for the obstruction was practically removed by chemical absorption previously; yet it was not until I began introducing the large electrode that the woman, to her great satisfaction, found that she could swallow solids and fluids with as much ease and confidence as she ever could. She was consequently discharged as cured on May the 5th. Since then I have examined her on several stated occasions, and have failed to find the slightest recontraction; so I look upon the case as absolutely cured.

CASE III was that of a gentleman—Mr. M.—a resident of Detroit; a liquor-dealer by occupation, fifty-two years of age, temperate in his habits, and of good family history. He consulted me for the first time on May 29, 1889, for difficulty of swallowing. He had suffered from increasing dysphagia for three years, taking sometimes as long as two hours to eat an ordinary meal; but it was not until a few weeks previously to seeing me that he was unable to swallow solid food. The dysphagia developed very gradually from the first, though the man never could assign any cause for it, unless it were from swallowing hot drinks; for he had been in the habit of drinking very hot fluids all his life. His appearance at this time was that of a healthy man, possessing an immense amount of will-power. Though not able to partake of solids, his body was well nourished by milk, beef-tea, beef-broths, and thin arrow-root, which he swallowed in large quantities slowly; yet he was extremely anxious to obtain relief, whatsoever the cost or means employed.

After obtaining the foregoing history I carefully examined the gullet with a No. 6 esophageal bougie. After many trying difficulties I succeeded in passing it through the stricture, which I found was located at the lower portion of the upper third of the esophagus. It was about an inch in length and apparently composed of smooth, dense, fibrous tissue. Galvanism was administered in a mild current—ten milliampères—on May 30th. A negative electrode was by gentle pressure made to pass the obstruction in twenty minutes. This was repeated on the 1st, 2d, 4th, 6th, 8th, and 10th of June, when it was dispensed with for a No. 20 negative electrode; but, owing to the density of the tissues (which were very unyielding), it was with difficulty made to pass the obstruction, requiring an application of thirty minutes' duration, of a current strength of twenty-five milliampères. The electrode was introduced again on the 12th, 15th, 18th, 21st, and 23d of June,

when it passed the fibrous ring without encountering any particular resistance. The man was now able to swallow fluids much more easily, and to partake, too, of finely-minced meat. On the 25th of June I introduced a much larger electrode, two-thirds of an inch in diameter by one and one-half inches in length, with a current-strength of twenty-five milliampères. The electrode was made to pass the stricture in five minutes, with the application of only slight force. It was again introduced on the 28th and 30th of June, when I applied my largest electrode, one inch in diameter by two inches in length, with the same current-strength. On July 1st the electrode passed the obstruction very readily, without causing any pain or inconvenience whatever. This last electrode was again applied on the 3d, 6th, 10th, 16th, 20th, 24th, and August 4th and 10th, when the patient was discharged as cured. He was able to swallow both solids and liquids without experiencing any sense of choking. Since then I have examined his gullet twice and found no recurrence of the stricture. So far he is a perfectly healthy man.

CASE IV is that of Mr. G., forty-seven years old; of German extraction, with a good family history, a printer by trade, and a resident of Detroit. He consulted me August 5, 1890, for difficulty in swallowing, which he declared was occasioned by a long-standing pharyngeal catarrh. Though not intemperate, he drank beer regularly and smoked black plug-tobacco to excess. He frequently suffered with faintness, nausea, and vomiting. Though it was but a year previously to his consulting me that he began to realize that his gullet was gradually narrowing, when I first saw him he was utterly unable to swallow solid food, subsisting wholly for several weeks on nutrient fluids. After obtaining this history I found, on examination, that opposite the cricoid cartilage, just at the beginning of the esophagus, where usually the slightest contraction interferes with the peristaltic action of its circular fibers, there was a general contraction of the gullet, arising principally from a local hypertrophy of the mucous membrance, which yielded readily to a No. 20 esophageal bougie. Simple dilatation was practised for several weeks daily, first with fair results, but I found this too tedious and irritating to the parts, and I again resolved to try electrolysis. The negative electrode, three-quarters inch in diameter by one and one-half inches in length, was applied without difficulty to the thickened portion of the gullet for twenty minutes, with a current-strength of twenty-five milliampères on August 28th, also on the 29th and on Septemper 1st, 8th, and 12th, with splendid results, for the man was at this time able to swallow solids with comparative case. On the 20th I introduced the larger electrode, viz: one inch in diameter by two inches in length, with a current-strength of twenty-five milliampères for twenty minutes. This was repeated again on the 27th, and on October 1st, 10th, 15th, 23d, and 29th, when he was discharged as cured, for he could swallow solids with perfect satisfaction and ease. He still comes to my office every three months to have his gullet electrolyzed, but I have thus far found no evidence of recontraction.

CASE V is that of Mrs. M., of this city, twenty-eight years old, who some ten years ago suffered from esophagitis, which resulted in a general chronic hypertrophic condition, followed ultimately by a diminution in the lumen of the gullet, so that she was unable, especially during the catamenial periods, or when suffering from colds, to swallow solid food. Indeed, during her best spells, she was compelled to masticate her food thoroughly fine, and to have it well moistened with saliva or other fluids, before she dared attempt to swallow it, and then in only small quantities at a time. Her capability of swallowing was, however, gradually lessening, and this thoroughly aroused her to a sense of her true condition, when she was induced to consult me. After learning the true status of her case I made a careful examination of the esophagus, using a No. 15 bougie, and found that the caliber of the gullet was greatly reduced by a general thickening of the mucous membrane interfering with its functional activity. The woman was placed upon electric treatment May 2, 1890. A negative electrode, one-half inch in diameter by one inch in length, was gradually introduced into the diseased gullet, until the cardiac orifice was reached, a current-strength of thirty milliampères being employed for thirty minutes. The application was repeated on the 4th, 6th, 8th, 10th, and 12th, when a five-eighths of an inch electrode was applied on the 14th, 16th, 20th, and 24th, with the same strength of current and for the same time. After the introduction of the last electrode the woman had improved remarkably, for she could swallow solids of every description with perfect ease, without pain or sense of choking, to her great enjoyment. On May 28th and June 4th, 8th, 12th, 15th, and 20th I used the larger electrode, as in other cases, though it was not necessary, and the patient was dismissed as cured. I have examined her esophagus on several occasions since—the last time a month ago—and find that the hypertrophied condition is entirely removed, with no evidence of its recurrence.

CASE VI is that of an elderly lady, fifty-eight years old, a resident of South Dakota, with good family history. She consulted me on the 15th of April, 1891, for a difficulty of swallowing. She stated that she had enjoyed good health until six months previously to consulting me, and that the dysphagia had gradually but rapidly increased until she was unable to swallow even fluids. During the commencement of the trouble she experienced great pain in swallowing, accompanied by a burning sensation in her stomach, which caused her to drool large quantities of tenacious secretion. These symptoms, however, passed away just as gradually as the disease developed, until the gullet became practically occluded, about four weeks previously to her visiting me. Though she had to depend entirely upon nutrient enemata for subsistence during this time, she did not appear to have lost much flesh or courage. Indeed, the only sign of any physical impairment noticeable was a feeling of general weakness, which became quite apparent after gentle exercise. After obtaining this history I made a careful examination of her gullet, and found, as I anticipated, a

formidable obstruction at the cardiac extremity, by which, after many attempts, I failed to pass as small a bougie as No. 4. Being fearful of the dangers that attend forcible dilatation, viz., that of rupturing the diseased part of the gullet, and in view of the fact that the diagnosis was obscure, and the actual result of the case could not be determined, I proposed what I considered then the most reliable surgical procedure, viz., gastrotomy. After due deliberation, this was refused. As time was exceedingly precious, and being fully warned of the probable outcome of her case from delay, the woman, though greatly opposed to the direct administration of galvanism, consented to try it. I must confess that I did not expect good results from it myself, for the canal appeared to me to be entirely obliterated by organic deposits. However, on the 18th of April I introduced a No. 4 negative electrode down to the stricture and applied, with a steady gentle pressure, a mild current, of ten milliampères, which was gradually increased after several minutes to fifteen. The application was suspended for a couple of days, as the patient complained of some pain, with nausea and faintness. The application was repeated on the 20th, 21st, and 22d, with similar results. On the 24th, however, when she found that no bad effects resulted, she was able to withstand a much stronger current; twenty-five milliampères for twenty minutes, without any annoying symptoms whatever. This was repeated on the 25th with the same current-strength, when, to my great astonishment, I discovered, after twenty-five minutes' steady application under gentle pressure, that the electrode passed by the obstruction and entered the stomach. This electrode was again applied on the 26th, 27th, and 28th, with better results. On the 29th I introduced a No. 6 electrode under similar conditions. It passed the obstruction readily, and was used, in all, four consecutive times. On June 5th I introduced a No. 12 electrode, to which the stricture yielded after a few minutes' constant application. This was followed by a No. 20, which was applied on the 6th, 7th, 8th, 9th, and 10th with good results, for the woman at this time was able to swallow warm, nourishing drinks in very small quantities. On June 12th, 13th, 15th, 17th, and 20th I applied an electrode, one-half inch by one inch in length, with the greatest ease. Indeed, the constriction—about an inch in length—appeared to have lost its contractility entirely, as if the obstruction was completely removed, for I was able to pass my largest electrode, one inch in diameter by two inches in length, through the whole of the gullet into the stomach without encountering any particular resistance. Although the peristaltic power of the esophagus was greatly impaired from want of proper stimulus, in consequence of non-usage, the patient was able to swallow fluids slowly, and solids, after being finely minced, in small quantities at a time. The power of deglutition was gradually restored after a few months of regular treatment as rapidly as her general health improved. The woman was discharged in August as practically cured, with the functional activity of the esophagus fully restored. I have recently heard from her, and she declares that she can swallow solids with greater ease than when she was discharged, ten months ago.

CASE VII is that of Master C., fourteen years old, anemic and delicate-looking. Four months ago he consulted me for a difficulty in swallowing. I learned that a year previously he had suffered from a severe attack of diphtheria, from which he never fully recovered. Although he was able to swallow nutrient fluids with ease, he found it impossible, from a dread of choking, to swallow solids. On examination, made with perfect ease, I discovered, just at the junction of the esophagus with the pharynx, a slight cicatricial contraction—just enough to interfere with the commencement of the peristaltic action of the circular fibers. Electrization was practised, with forcible dilatation, for several weeks, with perfect success. The boy is now able to swallow as well as he could before he was stricken with diphtheria, and has improved greatly in general appearance, having gained in flesh and strength.

Some of the cases here reported are of too recent date to assure ultimate recovery. I am almost persuaded, however, especially after considering the nature of the strictures as being not morbid in character, that they will not recur. As the majority of them have not received any treatment in more than two years, and I have yet failed to notice the slightest evidence of their recurrence, I think we are justified in claiming them to be permanent cures. In Cases III and VI, I was impressed by the doubt at first as to whether malignancy was at the bottom of them or not; for their ages and the history of the rapid development of the obstruction suggested such a view, though subsequently the strictures proved to belong to the cicatricial variety and to be quite local.

In organic strictures of whatever kind I have, however, never been able to afford more than partial and temporary relief; they are, practically speaking, incurable; for I have not managed to find, after making an extended search through medical literature, that they could be cured.

In thus briefly recording the excellent results derived from electrolytic action in these cases, though they happened to originate primarily from simple inflammatory action, resulting in cicatricial and other deposits of inflammatory products of a non-malignant character, we are compelled to admit, that for safeness, rapidity, and reliability in combating such difficulties, electrolysis has no superior.

It may be true that in Cases IV and VI we could have practised simple dilatation with safe advantage, with perhaps similar results after a longer period of treatment. We can, however, never be certain that dilatation will afford permanent or temporary relief. Again, I have found from personal experience, in several cases, especially if the strictures were in any way unyielding and spasmodic, that the bougies, however gently used, not only caused irritation

and pain, but also aggravated the narrowing. Forcible dilatation or rupture, though it has occasionally been performed with fair results when it was desirable to open up the passageway as quickly as possible, I do not consider a safe proceeding, for the reason that just where the fibrous band or cicatricial contraction springs from the esophageal wall, atrophy of the muscular tissues usually takes place, especially if the stricture is of long standing—a result, no doubt both of defective nutrition and of want of proper peristaltic exercise, so that that portion of the strictured gullet is weak and unprotected from forcible expansion. Indeed, internal esophagotomy is a safer proceeding, if the extent, position, and direction of the incision could be regulated, because less violence is applied to the gullet in the division of a stricture than in forcible rupture. Esophagotomy possesses as well the greater advantage of hastening the process of dilatation. Though internal esophagotomy is ideally the best operative procedure, it is not by any means free from danger, because it is almost impossible to regulate the amount and extent of the division. Of eleven cases operated on for cicatricial stricture, reported by Sir Morell Mackenzie in his admirable book, 28 per cent. died directly from the operation. As Mackenzie curtly remarks, the "thinness of the esophageal walls, the close proximity of many vital organs, and the fact that in disease the gullet is often immediately adherent to surrounding parts, constitute dangers which cannot be ignored," even by the skilled esophagotomist.

In electrolysis, however, we have not only a safe electrochemic weapon, but a reliable one, which has in these cases guaranteed absolute satisfaction. Indeed, I am not acquainted with any other system of treatment that can compare with it in the removal of cicatricial contractions of the gullet. For the sake of argument, it may be said, that since the electrodes were graded and used precisely like dilating esophageal bougies, the process was similar to that of dilatation. I have, however, already shown in several instances, that even simple dilatation is sometimes very irritating, unreliable, and tedious, whereas in these cases the electrochemic bougie was not. It accomplished its purposes in accordance with a just estimate of its utility in some instances, as in Case VI, even after the stricture was acknowledged to be extremely difficult and intractable of treatment.

The Prevention of Tuberculosis in the Dog.—At a meeting of the Académie des Sciences, Richet and Héricourt (*La Médecine Moderne*, No. 24, 1892, p. 387) reported the protection of dogs from human tuberculosis by previous inoculation with the tuberculosis of birds. Of nine animals so treated all survived, while twenty-one control-animals died.

THE TREATMENT OF POSTERIOR ROTATION OF THE OCCIPUT DURING LABOR.[1]

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AMONG the complications of labor not requiring surgical interference none is more important or fraught with greater danger to child and mother than posterior rotation of the occiput. We desire to substitute this term for that commonly employed —"occipito-posterior positions"—believing that the method of obstetric study that recognizes but two positions for each presentation is more rational and serves a better purpose than the more complicated system that calls for many positions. We shall then make but two positions for each presentation; for example, a vertex presentation has a first and a second position. The first is the usual one, the back of the child directed toward the left side of the mother and the vertex directed slightly toward the left side of the mother's pelvis. The second position of a vertex presentation is that in which the back of the child is directed toward the mother's right side and the occiput points to the right of the mother's pelvis.

During labor the occiput, in the vast majority of cases, turns forward, toward the symphysis pubis. Occasionally it descends through the pelvis, showing a tendency to turn posteriorly, thus giving rise to what have been styled "posterior positions." It occasionally happens that during pregnancy the occiput is situated behind the center of the mother's pelvis; whether the occiput endeavors to turn backward, or whether during pregnancy it is situated slightly behind the center of the pelvis, it is more rational and easier of comprehension to call this abnormal turning of the occiput "posterior rotation" than to make four positions, two of them posterior. In common with many Continental students of obstetrics, we style the condition as an "abnormal rotation of the occiput," and not as "occipito-posterior positions."

The causes of the tendency to turn posteriorly are several. The mother's pelvis may be narrowed in its anterior half and its sides may lack those surfaces anteriorly to a line drawn upward and forward from the spines of the ischia that normally favor the anterior turning of the head. The head of the child may be of unusual size or contour, finding its most convenient lodgment at the posterior extremity of one of the oblique diameters of the pelvic brim. Again, during labor, the posture assumed by the mother may not be such as to favor the anterior

[1] Read at the meeting of the American Medical Association, Detroit, June, 1892.

turning of the vertex. Many cases exist in which no one factor has been found to be entirely responsible for the abnormality; thus, a small child may enter the pelvis with its head in partial extension or flexion, and this intermediate condition remaining, the occiput may turn toward the hollow of the sacrum.

Some of the symptoms of posterior rotation of the occiput may be perceived before labor has actually begun, while others are discernible only after the commencement of labor. Palpation and auscultation will often reveal the fact that the occiput is directed toward the middle line or even slightly behind the center of the pelvic brim. The back of the child may be turned somewhat posteriorly, so that the heart-sounds seem to come from deep in one side of the mother's abdomen. If the abdominal walls are thin the occiput can be mapped out and accurately located. If a history of previous labors be sought there will be an account of prolonged parturition, probably ended by instrumental delivery, and often resulting in the death of the fetus.

At the time of labor it is often difficult to map out accurately the position of the head unless the tissues be elastic and admit of manipulation. If the attending physician notices the absence of the vertex in the anterior half of the mother's pelvis he will do well to allow her to inhale sufficient chloroform to permit the introduction into the vagina of enough of the hand to make a positive diagnosis.

We shall best understand the indications for treatment by considering briefly the course of a hypothetic case if left to nature. Statistics show that the greater number of cases result in anterior rotation of the occiput without assistance. By some the proportion of cases that rotate spontaneously to the front is placed as high as 96 per cent.; others allow but 75 per cent. My own observation and the records of 219 cases occurring at the Philadelphia Hospital lead me to believe that 87 per cent. of these cases terminate spontaneously with anterior rotation. A source of fallacy in a study of the question arises from the fact that an exact diagnosis of the position of the head is rarely made early in labor; a practitioner is often satisfied with finding that the head is presenting and that the face is not the part found by the examining finger. Thus, a case in which posterior rotation has begun, but which terminates by turning forward, is not recognized until anterior rotation has occurred.

If we seek to ascertain the factors upon which anterior rotation depends, we find them to be essentially three in number: First, a normal proportion in size between the head and the pelvis; thus, a small head in a small pelvis favors normal rotation, and a large head in a large pelvis is likewise favorable. Secondly, a flexed position of the head is essential to anterior rotation of the occiput. Thirdly, the forces of labor must be normal, namely, the contractions of the uterus and the resistance afforded by the pelvic floor. If any one of these factors is notably deficient, a perversion of rotation is very likely to occur.

Abnormal rotation of the occiput is a source of danger to the life of the child and to the integrity of the mother's tissues and also to her life. The child's life is jeopardized by long-continued pressure during prolonged labor, resulting in visceral hemorrhage and death. The mother's tissues are endangered by reason of the abnormal prolongation of the pressure of the head during efforts at rotation, while her life is imperilled by the added risk of septic infection and exhaustion.

The treatment of such abnormal rotation would rationally consist in an effort to supply the one or more factors already described that may be deficient or perverted. Although the physician cannot remedy disproportion in size between the head and the pelvis, the sooner he becomes aware of such disproportion the better for his patient. No woman should be attended during her first pregnancy unless her pelvis has been measured by her medical attendant. In making this statement we do not insist upon an elaborate measurement of the pelvis, but urge that three external measurements be invariably made. These are: the external conjugate, the distance between the anterior superior iliac spines, and the distance between the outermost points of the iliac crests. If the physician has the opportunity of making such an examination as early as the thirtieth week of gestation, he may, if necessary, be able to induce labor, thus securing a normal rotation of the occiput before disproportion between the head and the pelvis has gone so far as to endanger his patient. If he does not see his patient until she is considerably advanced in labor, the knowledge that her pelvis is smaller than the average will be of great value in preventing the futile effort to deliver a large head through a pelvis too small for it. In addition to the measurement of the mother's pelvis, an effort should be made to ascertain the comparative sizes of the head and the pelvis. This can be done by placing the patient upon her back, her thighs being flexed, while the fetal head is gently pressed downward into the pelvis by the examining hand laid broadly behind the pubes, the other hand steadying the fundus of the uterus. If more exact information is desired, one hand may be placed against the head by internal examination, while pressure is exerted with the other hand behind the pubes. A head that begins to slip into the brim of the pelvis under such manipulation is not too large to rotate successfully during labor.

Flexion of the head, necessary to secure anterior rotation, may be promoted and maintained by the employment of the hand, accompanied by the use of forceps. When the physician discovers that the occiput is turning posteriorly, while the head is but slightly flexed, if the patient be anesthetized sufficiently to permit the introduction of the hand, the occiput may then be drawn down, or the chin pushed upward, and flexion secured. If this effort fails, flexion may be secured by axis-traction with the forceps, as will be described in a succeeding paragraph.

Flexion and anterior rotation may be further facilitated by the posture of the patient; thus, if the back of the child be turned toward the left side of the mother and the occiput tends to rotate posteriorly, the mother should be turned upon her left side, with her thighs flexed and her shoulders bent slightly forward. This posture causes the fundus of the uterus, containing the body of the fetus, to fall toward the left side of the mother's spinal column, as it will be remembered that the uterus normally occupies a position of right lateral obliquity in the abdomen of the mother. This movement of the fundus from right to left, by gravitation, favors the turning of the occiput from left to right, and thus anterior rotation of the vertex is expedited. If the child's back is directed toward the right side of the mother and the occiput seems about turning toward the sacrum, the mother should be placed upon her right side, with her body flexed as has been described and her right side propped up from the bed by means of pillows. Gravitation of the fundus is thus favored, and anterior rotation is more likely to occur.

The posture often instinctively assumed by women, namely, that of kneeling strongly forward upon the bed, is one that favors flexion and anterior rotation. The fundus of the uterus falls forward, the head tends to flex and descend into the pelvic cavity, and the long axis of the fetus corresponds more perfectly with the direction of the axis of the pelvis.

In addition to posture, constant external pressure against the vertex sometimes favors anterior rotation of the occiput. Thus, I remember having seen a case so treated in the wards of a foreign hospital; the patient was placed upon her side and a small bag filled with sand was laid upon the abdomen against the vertex.

We now come to consider the last of the three conditions upon which anterior rotation depends, namely, the expulsive force of the uterus and abdominal muscles, and the resistance of the pelvic floor. If the former is deficient, a suitable stimulant to the nervous system is indicated; thus tea, coffee, alcohol and quinine are most available; it is rarely necessary to employ ergot, and exceptionally the faradic current of electricity has been found useful. A narcotic that causes labor to cease absolutely for a time, while the patient sleeps, has often been found of value, the patient on awakening rousing to renewed activity. Direct stimulation of the uterus by rubbing the abdomen, and by pressure exerted upon the head in the axis of the pelvis, may carry to a successful parturition a labor lingering in its last stage. Again, anesthesia of a moderate degree may temporarily remove the depressing influence of pain and cause renewed uterine activity.

While such expedients are frequently successful, yet the forceps is very often the last resource of the practitioner. In this, as in all forceps deliveries, two methods are to be distinguished. One is that which all that use forceps desire to carry out, namely, the application of the blades accurately to the sides of the child's head; this requires a forceps modelled after French instruments, or shaped like the familiar blade devised by Davis, of London.

The other method of applying the forceps is that recognized as a valuable expedient, although not the ideal method of operating; this is the application of the forceps to the sides of the pelvis, and suggests the employment of an instrument modelled after the forceps of Simpson, of Edinburgh. In the first instance, forceps and head rotate together; in the second, the head rotates in the forceps, the blades remaining in the axis of the pelvis at the sides of its cavity. The first method requires for its safe performance a very accurate diagnosis of the precise location of the occiput; this will usually require anesthetizing the patient and the introduction of nearly all or of the entire hand within the vagina. In the second method the occiput may not be definitely located, although its absence from its usual location may have been determined. The forceps is then applied to the sides of the pelvis, traction is made gently with the pains, and between the tractions the grasp of the forceps is relaxed, the head rotating within the forceps-blades, so that each application is virtually a new one.

Neither use of the forceps is skilful that does not at the same time employ axis-traction. All obstetricians are familiar with the simple manipulation of performing axis-traction with the hands, grasping the handles of the forceps with one hand and raising them, while the other presses downward and backward upon the instrument at the shank. If the case be a difficult one, this requires for its successful performance very considerable strength in the hands and wrists. The axis-traction forceps of Tarnier and those modelled after it represent an established method of securing axis-traction in these cases. The Tarnier instrument, however, is not convenient for the ordinary exigencies of confinement; it is too heavy, too large, and too expen-

sive. Poullet, of Lyons, in a thesis described the application of the tapes as tractors to secure axis-traction. Many had already employed this, or a similar device, by passing a tape or cord around the shank of the forceps, and forming a loop into which the foot of the operator could rest, and by downward traction assist in the delivery. Poullet has modified and made more simple his use of the tapes, as shown in his most recent instruments. I applied the tapes, as first suggested by Poullet, to the Simpson forceps for the purpose of meeting the indications in those cases in which the occiput tends to rotate posteriorly, and in which the Simpson forceps applied to the sides of the pelvis seems most clearly indicated. The tapes have been similarly attached to the Davis forceps for cases in which that instrument seems most suitable; my experience leads me to prefer the Tarnier forceps in cases in which the instrument can be applied accurately to the sides of the head.

In using the forceps with the tapes no extra device for holding the instrument tightly upon the head is necessary. As traction is made, the tapes tend to draw the blades together; thus, in using the Simpson forceps, care should be exercised that the blades do not approach too closely.

In using either form of instrument, but moderate force is needed to effect delivery, provided axis-traction be made; the failure to perform axis-traction accounts for many of the difficult and dangerous cases of forceps-delivery. The head should be kept thoroughly flexed during its exit from the genital tract; the use of axis-traction has largely done away with that function of the forceps said to favor rotation. No one would attempt to forcibly twist a vertex in the pelvis; the difference between traction in the axis of the pelvis and the attempt to deliver without such traction can never be appreciated without a practical experience with the two methods. The former is a difficult, tedious, and laborious task; the latter is a matter of much less difficulty. As illustrating the method of favoring rotation by axis-traction with the Simpson forceps, the following case, reported originally in the first volume of the *Philadelphia Hospital Reports*, may be described:[1]

M. H., thirty-six years, an Irish domestic, unmarried, a unipara, was admitted to the hospital October 16, 1889, in a fairly good condition. While awaiting delivery she suffered from numerous severe attacks of asthma, and was found to have emphysema, with some dilatation of the right ventricle. Examination of the heart revealed no valvular lesion, and examination of the urine showed an absence of albumin and of casts. For the relief of the asthma, grindelia robusta, potassium nitrite, and soda, with chloroform-inhalations, were employed. During the woman's stay in the obstetric ward her general condition did not improve, the attacks of asthma increasing in frequency, the patient becoming anemic, irritable, and weak. About three weeks before labor, albumin in considerable amount was found in the urine, and about a week later the legs and feet became edematous.

Labor began Tuesday, December 24, at 10.30 P.M., the patient reaching the maternity ward at 10.30 P.M., December 25, 1889. At this time she was weak and irritable; she suffered from dyspepsia and complained of pain in the back. The os was patulous to one finger; no presenting part could be felt, polyhydramnios being present; the uterine contractions were infrequent, of slight force, but caused great suffering. The first stage of labor lasted sixty-two hours, the general condition of things remaining much as described; the abdomen was enormously distended, tense, fluctuating; the fetal heart was distinctly heard low down in the right flank. The position of the fetus could not be made out by palpation. The patient became weaker, the pulse losing in volume and increasing in frequency to 115. At an early hour in the morning of December 28th the membranes ruptured, and a large amount of greenish liquor amnii escaped, but the head, which presented in the right occipito-posterior position, prevented the escape of all. It was now found that the woman's bladder was full of urine, and catheterization was necessary. Still the head failed to descend through the pelvis, which was not markedly contracted, the measurements being: Spines, 23.5 cm.; iliac crests, 26.5 cm.; external conjugate, 18 cm.; right diagonal, 22 cm.; left diagonal, 21 cm.; trochanters, 28.5 cm.; circumference, 85 cm.

The contractions of the uterus diminished in force, and at 12.30 P.M., December 28th, the patient was anesthetized with chloroform; Simpson's forceps, with the Poullet tapes attached, was applied, and the head delivered. The cord was wound twice around the neck. Delivery was difficult, consuming considerably over an hour; the occiput remained posterior until just before delivery, when it quickly rotated forward. The grasp of the forceps was relaxed between the tractions to allow rotation. Double episiotomy was practised, and no considerable laceration occurred.

In bringing this paper to a conclusion, I desire first to draw attention to some errors that I think not uncommon in the treatment of these cases. Of primal importance in this report is the neglect of the effort to measure the patient's pelvis when possible, and when this is not practicable to estimate the comparative sizes of the head of the child and the mother's birth-canal. In this the profession must educate its patients, and this can be done only if methods of examination are conducted without exposure, without violence, and in a kindly and skilful manner. It is my custom to teach students to examine the pelvis, diagnosticate the position of the child and its presentation, and ascertain whether

[1] Philadelphia Hospital Reports, vol. i, p. 229.

the head is likely to enter the pelvis readily, while the patient remains covered by one thickness of linen. We can no longer comfort ourselves with the remark that American-born women rarely have contracted pelves; this statement is not strictly true, and the large number of foreigners coming to our country show frequent examples of varying degrees of pelvic malformation. The skilful obstetrician, by his knowledge, avoids prolonged and disastrous labors, and such good results are impossible without a skilful examination of the pregnant patient. If a large head be detected at the brim of the pelvis, scarcely able to enter, and showing a disposition to rotate posteriorly, it will be found better practice in many cases to perform the conservative Cæsarean section, saving the lives of mother and child, rather than subjecting the child's life to great risks and exposing the mother to serious injury in delivery.

I desire, secondly, to draw attention to the efficacy of posture in favoring rotation of the occiput when the head has entered the pelvis. Whether it be that the patient lies upon the side toward which the occiput is pointing, or whether she inclines the pelvis forwards, I am convinced from observation that posture is a valuable adjunct in the conduct of such cases. I desire also to criticise that method of examination consisting in the introduction of but a portion of one or two fingers in the effort to make an accurate diagnosis of the location of the occiput, and to favor its anterior turning. The practitioner should prepare himself to apply the forceps if necessary, and then anesthetize his patient to obstetric anesthesia, preferably with chloroform; he should introduce so much of the hand as may be necessary to make an accurate examination of the entire vertex. In the intervals between the pains he will be able to favor anterior rotation, and when he has thus brought the vertex in front of the middle of the pelvis, without removing the hand the forceps may be applied and the labor terminated.

Third. The forceps is often applied too soon, thus neglecting one important factor in anterior rotation, namely, the resistance of the pelvic floor. If the forceps be applied before the head has had an opportunity to rotate upon the pelvic floor, its posterior turning is often favored by the instrument rather than its anterior rotation. On the other hand, the forceps is often applied too late, when flexion has become impossible by reason of the persistence of partial extension, the head becoming impacted upon the pelvic floor in this unfavorable position. The life of the child has frequently been lost in such cases before the final effort at delivery is made, and when such is the case craniotomy is often the only rational procedure.

In conclusion, I would urge the following as points of importance: First, the adoption of the simple nomenclature already stated, which has borne the test of usage on the Continent of Europe, and which will render more comprehensible the mechanism of labor. I refer to the designation of two positions only for each presentatation, anterior or posterior rotation being designated, as the case may be. Second, the importance of pelvimetry and of the comparative estimation of the sizes of the head and the pelvis is paramount; by the second of these I mean the careful estimation as to the degree of engagement of the head, and if the head has not engaged, pressing it gently into the pelvis by supra-pubic pressure, the patient being, if necessary, partially anesthetized. Third, when the head is proportionate in size to the pelvis, and lingers upon the pelvic floor by reason of failure in expulsive force, the child's life and also the mother's safety being in danger, the forceps should invariably be used with axis-traction. The forceps should be used in accordance with the possibilities of the case, and that form of instrument should be selected that was intended for such possibilities. Whenever practicable, forceps designed to be so applied should be accurately placed upon the sides of the child's head, axis-traction made, the head and the forceps rotating together anteriorly. When such accurate apposition is impossible, forceps modelled for application to the sides of the pelvis should be employed with axis-traction, the forceps making as little pressure as possible upon the head, the blades being relaxed after each traction so that rotation anteriorly may occur between the blades. Fourth, a conservative Cæsarean section may be indicated if a living child, with large, firmly ossified head, presents with a posterior rotation of the occiput, the head failing to descend into the pelvic cavity; craniotomy may be indicated if such a child has perished during its entrance into the pelvis.

THE GENESIS OF CROUPOUS PNEUMONIA.[1]

BY WILLIAM W. PENNELL, M.D.,
OF FREDERICKTOWN, OHIO.

FROM being regarded as the result of a common cold to the more scientific opinion that it is the effect of a vegetable microörganism acting upon the animal economy; from being supposed to be a local inflammation to the view that it is a zymotic or essential fever, with pulmonary lesions, only the general causes of pneumonia are known, the specific being undetermined and a matter of conjecture. Under such conditions it is held the rightful duty of every observer along the line to cast his mite into the general treasury of such knowledge, that the

[1] Read in the Section on Medicine of the American Medical Association, Detroit, Mich., June 9, 1892.

causal agency may ultimately be disclosed, as has occurred in other diseases. The subject-matter of this paper is mainly constituted of personal observation and deduction, and is offered for what it is worth.

Is pneumonia a local disease or an essential fever? The question is rather antiquated and behind the times. As a local inflammation, attended by a symptomatic fever, its causes must be similar to those of any other local inflammation that may have been produced by any thermal, toxic, chemical, dyscrasic, or mechanical influence. Such a process is almost necessarily attended by fever, a resultant of absorption of certain materials from the affected part, whatever the cause, or arising from a nervous disproportion between the production and dissipation of heat. That a pulmonary inflammation should differ from one of some other organ is not clear, unless its course, effects, and morbid anatomy are distinctive and unless only certain causes always produce it to the exclusion of every other. Simple inflammations often follow slight causes when the bodily health has been lowered by some antecedent influence; the cause not abiding, the process soon subsides, the exudate being absorbed and the part assuming its normal state. So a fleeting or an abiding cause regulates the duration of any morbid process.

In local inflammations, the location and surroundings in which exudations occur are the parts upon which the causative agent had been most forcibly exerted, the previous condition of such a part being unknown and not observable. The course of such an inflammation will be influenced more by the condition of the individual than by its cause or causes, such condition determining the sthenic or asthenic form of the inflammatory process. Its duration is governed by the transient or continuous origin, and is classified by the anatomic changes observed in the part inflamed.

Acute inflammations, due to transient causes, usually end in resolution and restoration of function. If the general health have been greatly impaired previously or during the attack, the inflammation may result in suppuration or purulent infiltration.

Yet it is the rule, even in the unhealthy, for the inflammatory process to stop short of abscess. Purulent formations, when they do occur, are generally supposed to be of bacterial origin, as bacteria are believed by many to cause every form and grade of inflammation.

In severe, acute inflammatory states attended by pus-formation, special microörganisms are well known, and are always found to be present. It is true, also, that organisms having no known noxious influence, either by themselves or by their products, are generally abundantly present. It follows that most bacteria are innocuous and incapable of producing inflammation, either by their intrinsic harmlessness or by their inability to carry the citadel of fairly normal tissues. No doubt there are bacteria capable of producing every kind of inflammation, yet incompetent to excite suppuration. To me it has seemed that there must be some agency to weaken the normal resistance of tissues before these organisms can operate successfully, and that bacteria, as a causative agency, are secondary and considerably overestimated. Those usually found asssociated with pneumonia are present in health and are apparently harmless—for aught we know are benign in disease, as the inflammations produced from pure cultures usually differ from the primary.

In croupous pneumonia we have a typical fibrinous inflammation, beginning with congestion and serous exudation, resulting in a filling of the alveoli and infundibula of the lobe affected with inflammatory products, or hepatization, and ending usually in resolution and occasionally in purulent infiltration. So far, the process resembles any other local inflammation. In its course, duration, character, and termination, it is in some respects analogous to specific diseases; in others the analogy is quite lost. That some cases are wholly specific, we believe. Some authorities,[1] however, assume that the disease has every feature of a zymotic disease in the same sense as cholera, typhoid fever, smallpox, etc,, and that a house having bad ventilation and sanitation, and having been once infected by pneumoniacocci, becomes their abode, because they find suitable soil for growth and multiplication, and are received into the system probably by inhalation, thereby causing frequent recurrences of the disease among the occupants. If this picture is absolutely accurate, then the same cleansing and fumigation is necessary in most houses after an attack of pneumonia as is needed after every case of smallpox, diphtheria, and allied diseases. The crowded tenement-houses of cities no doubt furnish such instances, but in the country and smaller towns, in the writer's experience, nothing of the kind has been encountered. Indeed, this seems to me an extreme view, because poor ventilation and bad sanitation in their entirety have often been found, while the infectious character of pneumonia has not been observed.

If pneumonia is infectious or contagious, then all that I have seen in over seventeen years has been of the sporadic variety—quite a different experience from that of other infectious maladies. I have seen typhoid fever and diphtheria attack one member of a family after another; I have seen several stricken at the same time; yet nothing of the kind has been observed in regard to pneumonia. Were this view

[1] Keating: Dis. Children, vol. ii, p. 588.

the usual experience of physicians everywhere, the specific character of pneumonia would have demonstrated itself long ago, as is daily demonstrated by zymotic diseases in every clime.

As telling against the zymotic nature of pneumonia, compared with typhoid fever: The former has been observed in the same individual a number of times; the latter but once. Pneumonia leaves the individual prone to subsequent attacks; whereas typhoid fever appears to confer immunity. This tendency to other attacks of pneumonia makes it resemble diphtheria, but, unlike that disease, it is not contagious. Then, no prodromal period has been observed, as in zymotic disorders, the onset being sudden. The course was generally severe and always short and not followed by sequelæ, as in typhoid fever, measles, diphtheria, etc. Pneumonia terminated by crisis, save in cases ending in purulent infiltration or abscess; in these few, if death did not soon take place, recovery was retarded, as in other purulent formations.

I do not remember a case terminating by lysis; and yet a critical ending in zymotic disease has been the exception—indicating the gradual elimination of the poison, or rather, perhaps, the return of the bodily resistance to bacterial infection. Inasmuch as we are taught that pneumonia is wholly a specific fever, I have often asked myself, What is it that destroys the poison so quickly and so thoroughly? Is this poison deposited in the exudate, and thereby rendered innocuous—a quarantine established by Nature for her own protection? I cannot fathom it.

To myself, not looking at the question from a bacterial standpoint, it has appeared that crisis occurs in two ways: 1. In all favorable cases, in from three to seven days, there is sufficient discharge or drainage to secure resolution, just as I have seen slight wounds that some good-souled mother had hermetically sealed by adhesive plaster that prevented a small amount of pus escaping, followed by chill, fever, and delirium, that terminated as soon as the plaster was removed and drainage was established. 2. The cause that excited the inflammation exerted its influence for but a short time, the resulting disturbance being the effects of an agent that acted traumatically and then withdrew, leaving a simple exudation.

The fact that the encapsulated coccus of Fraenkel has been found in the tissue of pneumonic lungs in 92 per cent. of cases examined is certainly inconclusive, because that germ is always present in the saliva of healthy individuals, and, for aught we know, in the lungs also; beside, their absence in even less than 8 per cent. renders the argument worthless. The character played by the pneumoniacoccus of Friedländer as an exciting cause of those pneumonias terminating in suppuration is unknown, but certainly the conditions favorable to the formation of pus are abundant, just as they are in pleuritis, hepatitis, and nephritis.

Another objection to the conception of the specific nature of pneumonia is that the disease is frequently aborted by antiphlogistic treatment, a rather infrequent result in zymotic diseases. I do not remember having seen a case of specific illness aborted, but I have seen cases prevented. At a meeting of the Philadelphia County Medical Society, April 13, 1892,[1] Dr. Hiram Corson read a paper on "Pneumonia and Its Treatment," in which he advocated venesection as a controlling remedy of the highest order, and states this to be the result of "over sixty-five years of careful, anxious observation." The results of his long experience are worthy of consideration, even if we no longer bleed.

On every hand appear the opinions of different observers as to the specific or non-specific nature of pneumonia. It appears that the idea of the zymotic origin of pneumonitis is widely diffused and gaining ground, and they that cannot see the way so clearly are in the background and perhaps moss-grown, not having given bacteriology as full study as it deserves. These fossils, however, admit the specific origin of known zymotic diseases.

In my own experience the immediate causes of pneumonia are few. Common cold is not one of them, for were this a cause pneumonitis would be wondrously prevalent when colds are abundant. On the other hand, continued exposure and exertion during seasons of the year having great thermometric range and conditions connected therewith would, in certain individuals, excite pneumonia; while others similarly exposed would escape.

I have seen the "dust chill" experienced by farmers after threshing in the heat followed by as typical a pneumonia as that consequent upon a prolonged drunken spree, while others similarly engaged entirely escaped. I have seen pneumonia as fully developed secondarily to chronic cystitis, arthritis, uremia, measles, etc., as it has been seen following vicious or licentious habits, yet many persons similarly exposed remained exempt. I have seen pneumonia as complete following the accidental inspiration of a portion of hazel-shell into the right bronchus, where it remained a few hours, being expelled by violent coughing; while contrarily, a child had a coiled piece of tin in the same situation for twenty-six days, without such effect. I have seen pneumonia follow the inhalation of dust by sawyers, the small particles being probably aspirated into smaller tubes and alveoli, a crisis being favored by expectoration. I have seen pneumonia follow unusual exposure to cold and wet in conditions of

[1] Journal Am. Med. Assoc., May 14, 1892.

hunger, debility, or intoxication, while some persons could withstand similar exposure with impunity, so far as pneumonia was concerned.

Sex makes no difference under similar depressing influences, and persons of an age anywhere from six months to forty years, especially in infancy and youth, are most liable to the disease. Pneumonia has been observed in early life, before a vigorous constitution is developed and when tendencies are uppermost; or in adult age, when the circumstances surrounding an active stage or when depressing agencies brought to the surface the latent tendencies of the individual. The degenerations and waning powers of old age have been nearly the same in effect as infancy or youth.

I have seen pneumonia in the wake of bad hygiene, poor sanitation, enervating habits, and overwork, and yet conditions the reverse of these were found inadequate to prevent it if some physical debility existed. To me it appears that some individuals and certain families are more disposed to this form of inflammation of the lungs than others, and that three factors alone are necessary to produce a pneumonia: 1. A predisposition or tendency. 2. Loss or lack of normal tissue-resistance. 3. An exciting cause. The result would be a pneumonic inflammation, alteration of the blood, fever and nervous phenomena.

1. Tendency may depend upon a previous pneumonia, dyscrasia, or family history of pulmonary weakness, favored by depressing, weakening habits and pursuits, age and surroundings.

2. While all the associated predisposing conditions and influences act on all alike, not all succumb to the development of pneumonia, because not in possession of essential predisposition.

3. The first two requisites being present, any exciting cause, be it dust, season, poisonous materials in the blood, microörganisms, or the manifold and diverse circumstances that tend to inflammation, would develop a pneumonia, its degree, course, and termination being influenced by the exciting cause: an inflammation not purely local nor yet bacterial or specific, but due to a systemic condition that permits many and diverse agencies to excite, rather than some other form of disease. It follows that a patient should be made and kept as aseptic as possible until the crisis is thoroughly established.

CLINICAL MEMORANDA.

A NEW OPERATION FOR LACERATED PERINEUM.

BY JOSEPH A. MULLEN,
UNDERGRADUATE OF JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

THE operation herewith proposed for the restoration of a lacerated perineum is as follows. For convenience of description I have divided it into different stages, and for sake of brevity of illustration I have taken a median tear:

1. The first step is to freshen up with scissors or scalpel the inner and lateral surfaces of the laceration, the same as would be done in Hegar's operation, or the simple median operation.

2. After this has been performed, temporarily suture together the two anterior extremities of the lacerated perineum, so as to gain a solid stay for further steps in the operation.

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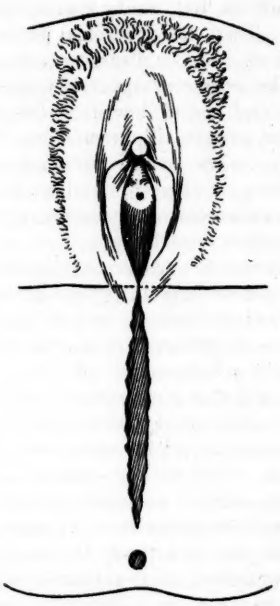

3. The first incision will be triangular in shape, and can be made on either side, commencing, in this case, on the right side, from one-eighth to one-half of an inch from the anterior margin of perineum, the apex being toward the latter and the base toward the interval between the anus and the ischial tuberosity. Begin the apex on the right lateral perineal margin, as already stated, making the incision as deep as necessary, and extending it to an angle of from twenty to forty degrees, and continuing it until a line drawn transversely from its basal extremity to the laceration would meet the latter from one-eighth to one-half of an inch from the anal extremity of tear. This distance will, of course, vary greatly, the variations depending on the amount of tissue present.

4. The second flap will be the reverse of the preceding one, *i. e.*, the apex will point in the direction of the rectal extremity of the laceration, beginning from one-eighth to one-half of an inch from the anal extremity of the tear, cutting upward and outward, so that the base of the flap will be continuous with a transverse line drawn from its extremity to a point from one-eighth to one-half of an inch from the anterior perineal margin in the median line. The depth of these incisions will

depend upon the tissue present and the size of the perineum.

5. After these two triangular flaps have been made, both being of equal dimensions and of whatever depth is desired, dissect the under surface free from the underlying tissue. When this has been thoroughly done, lift up with forceps the apex of the left triangular flap with

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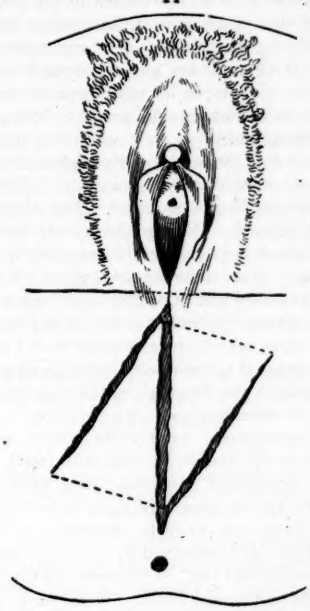

one hand, and with the other grasp the apex of the right flap, depressing it and at the same time gently pulling the left flap to the right side of the perineum and the right flap to the left perineal side, fitting them accurately in position. The apex of the right triangle snugly fits on the inner or ischial aspect of the base of the left flap, looking toward the fourchette; the apex of the left triangle will adapt itself to the base of the right flap, toward its ischial or inner side.

When the two flaps have been carefully adjusted, all that now remains is to suture the parts together. To get the flaps of the proper size requires no especial skill whatever, only the necessary care and attention requisite for any perineal operation. The dissections of the flaps are no more difficult than those in Tait's or in Martin's operation.

I believe it much better to commence suturing from the posterior extremity of the laceration, passing the needle, armed with the necessary suturing material, from the left to the right side through that portion of the perineum external to the base of the right flap, and so on to the anterior perineal margin.

The advantages of this operation are several: No tissue is wasted excepting that removed in freshening the lacerated margins (if they be old), and with this economy of tissue there is no corrugation or puckering of the perineum, which, among other disadvantages, is very likely to render the perineum smaller, thereby increasing the tendency to subsequent rupture. The saving of tissue, as in operation on any portion of the body, is of the utmost importance in enhancing the usefulness of the parts.

By the foregoing method the strength of the perineum is greatly increased. This will become evident when

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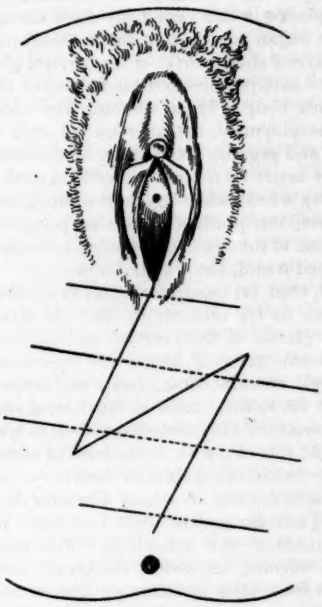

the position and shape of the flaps are considered. The anterior extremity of laceration will have been pulled to one or the other side, bringing intact tissue into the median line, and there will also be a bar of cicatrical tissue running obliquely across the perineum. If properly performed, the operation will leave the perineum fortified by cicatricial bands of support. But, after all, the most essential element in all operations on the perineum is to retain as much tissue as possible, and also to preserve the integrity, shape, and size of the perineum, and to leave it as near as possible in the condition in which it was before laceration.

A CASE OF TUBERCULOUS ADENITIS WITH GENERAL ALOPECIA AND PRURITUS.[1]

BY JAMES H. DUNN, M.D.,
OF MINNEAPOLIS, MINN.

THE case of tuberculosis of the lymph-nodes herewith reported, presents some phases in its clinical history that were to me quite novel, particularly the general alopecia and pruritus, which during the first year of the disease were the patient's chief plague.

Early in April, 1890, D. McA., an Irish-American

[1] Read in the Section of Dermatology and Syphilography of the American Medical Association, at Detroit, June 7, 8, and 9, 1892.

farmer, twenty-one years old, came under my observation. His father, mother, and several brothers and sisters were all living and healthy. Of more distant relatives he knew but little, but he denied any rumor or knowledge of a tuberculous family record. He has been a healthy and athletic young man, five feet nine inches in height, with a weight of 185 pounds. His hair and complexion were light; his eyes bright and blue. For several years he had each autumn been engaged in "feeding" a threshing machine, While employed in this very dusty work during the fall of 1888 he began to cough, without expectoration; he noticed marked enlargement of his cervical glands, and began to be annoyed by a terrible itching of the surface of his whole body. These troubles were attributed to his dusty employment, but after his fall work was over, the cough and pruritus not abating, he consulted a physician, was better for a time, and able to work until the fall of 1889, when, while again threshing, he became much worse, the pruritus especially being so intense that he came to the city and consulted a dermatologist—my esteemed friend, Dr. Vanderhorck.

In April, 1890, his parents sent him to St. Mary's Hospital, where he fell into my hands. At this time the lymphatic glands of the cervical and axillary regions were much enlarged, varying in size from a hazelnut to a hen's egg. None of these glands had suppurated, nor did they in the further course of the disease show any of the usual tendency of tuberculous glands to break down. On the right side of the neck, the mass of tumors was so great as to constitute a noticeable deformity. Respiration was very labored, and an almost incessant dry, barking cough plagued the patient night and day. He was incessantly rubbing and scratching. The skin was remarkably anemic, somewhat thickened, and slightly pigmented from long scratching. There was no eruption, excepting the scratch-marks, which were most numerous upon the legs, next so on the thighs and forearms, then on the arms. The whole surface itched, and, while conversing, the man was always engaged in rubbing the face, the scalp, or some other part. His body was almost devoid of hairs, which had fallen out since this itching began. There was a very scanty and scattered growth upon parts of the scalp, but absolutely none elsewhere; eyebrows, eyelashes, pubic hairs, etc., were wanting. His appetite was poor, and he was much reduced from loss of sleep.

On examination of the chest by several physicians there was found to be extensive dulness over the mediastinum, both in front and behind, and extending some distance to the right and left of the sternum, which all agreed was due to an extensive growth or mass of greatly enlarged tracheo-bronchial glands. The spleen was not perceptibly enlarged. After considerable study and observation of the case, I concluded that it was one of Hodgkin's disease, the pruritus and alopecia being due to pressure-disturbances of the sympathetic system.

As I was unable to relieve any of his symptoms I sent him to my colleague, Dr. J. W. Bell, who put him upon cod-liver oil and arsenic, I believe, remedies that we had tried in vain, and in less than a week he became, as he said, almost a well man. The enlarged glands diminished in size; the cough nearly ceased; the pruritus abated; he slept and ate. Of course, the glandular enlargement and all the attendant symptoms had several times in the course of the disease receded and advanced, but never, since the disease had been so bad, had the change been so marked. He left the hospital July 11th in great hopes, though his family was informed that the respite was only temporary.

This lull in the fury of the disease lasted about one month, until August; then the old symptoms all returned. I saw him no more until at the post-mortem examination, but learned from his father and attendants that during the period of betterment his hair grew quite thick and he gained several pounds in weight. After his relapse he soon got into his old condition, with incessant cough, pruritus, alopecia again almost universal, sleepless, pale, and ran along in about this condition until November, 1890, when all his symptoms became more distressing and his abdomen and lower extremities began to swell. The abdomen was tender and painful. During the winter he failed in every way, becoming considerably emaciated. He died in July, 1891. For some weeks before his death the abdominal swelling had subsided and the legs and feet were less dropsical. Whether or not he had fever during this latter course, which corresponded with a widespread invasion of general tuberculosis, we have no record, but during his stay in the hospital in the previous summer there were no disturbances of temperature.

At the post-mortem examination, held twenty-four hours after death, the body was emaciated, the lower extremities moderately edematous, and, with the exception of a very sparse growth of light hair on parts of the scalp, the body was entirely destitute of hair. The pubic, axillary, and superciliary hairs, as well as the eyelashes, had fallen out. There was no trace of beard and but little hair on the head. There were many abrasions, particularly upon the thighs and legs, caused by scratching. The various chains of lymphatic glands were all more or less enlarged. Some of the cervical glands and the axilliary glands on either side were of the size of a walnut. The inguinal glands were not much enlarged. On opening the chest, the heart was found to be normal. The mediastinum was literally packed with a great mass of large, roundish, and irregular tumors, clearly a huge growth of all the bronchial and other lymphatic glands of this region. They were matted together, so as to be very difficult of separation, but many were larger than hens' eggs. The pleural cavities were totally obliterated by adhesions, and the lungs were everywhere studded with tubercles of the size of grains of wheat.

On opening the abdominal cavity, no fluid was found, but all the organs of this cavity were bound in one mass by more or less firm adhesions, and the peritoneum was everywhere studded with tubercles, not of the finer or genuine miliary variety, but somewhat irregular bodies, from the size of sago-grains to that of small peas. As far as the eye could detect there were none of the millet-seed sized, whitish-gray, hard nodules, sometimes seen in acute miliary tuberculosis. These were larger, softer, and more caseous in appearance. The abdominal glands were all greatly enlarged, many of them varying in size from that of walnuts to that of hens' eggs.

The omentum was a thick, hard, nodular mass. The

liver was somewhat enlarged, everywhere adherent to surrounding parts, but it presented no visible tubercles in its interior. The capsule of the spleen was very thick and dense, and so intimately adherent to adjacent parts that it was extracted only after long and forcible tearing. The organ was considerably enlarged, but no tubercles were seen in its parenchyma. The kidneys were, like the other organs, firmly imbedded in the thickened peritoneum, but they appeared normal on section. All the internal organs of the chest and abdomen, excepting the heart, were bound into one mass by the adhesions.

The cause of death was general tuberculosis arising from tuberculous glands.

Among the occasional sources of pruritus, I believe Kaposi and others mention lymphadenoma or Hodgkin's disease, and it is perhaps not to be marvelled at that so protean a disease as tuberculosis should give rise to a great variety of symptoms. Probably no other specific infection, excepting the syphilitic, gives rise to such varied symptom-complexes as does the tuberculous. Outside of the pulmonary and other more ordinary manifestations, its ravages are often most curious. The autopsy not rarely yields surprising results.

A CASE PRESENTING THE SYMPTOMS OF LANDRY'S PARALYSIS, WITH RECOVERY.[1]

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M——, a native of Baltimore, thirty-three years old, well-built, rather corpulent than muscular, temperate in all his habits, and accustomed to lead a very quiet life; had been in good health previously to the attack about to be described.

On November 26, 1891, he caught cold, for which he took quinine and mustard baths. On November 28th he got wet by rain. He now experienced intermittent pain in the calf of the leg. About December 1st he observed, to use his own language, "a cold feeling across his toes, as if he had dipped them in cold water; also the same cool feeling attacked the left upper lip [*sic*], as if it were chapped and air blew on it." These ill feelings continued till December 6th. On that day he was about the house, as usual; but in the afternoon, on attempting to go up stairs, in his own words, "very much to my surprise, I found I did not have the power to raise the left leg from one step to the other without serious exertion in the way of dragging it." In a few days he took to his bed, "being unable to hobble around any longer." The feeling of coolness and numbness continued to get worse, and to extend upward on his legs to the knees, and also invaded the hands and arms to the elbows, the muscular power steadily failing from the lower extremities upward.

The patient was under the care of Dr. F. Chatard, of Baltimore, who kindly asked me to see him, and to whom I am indebted for many details of the case. I first saw the patient on December 17th. His lower limbs were then completely paralyzed, but not emaciated or flabby. The muscles of the trunk and belly were greatly weakened. The man could make a wriggling motion with his hips, but could not sit up or turn on his side. He coughed, but with very little force. The hands and arms were quite weak, with a tendency to assume the position of wrist-drop. The shoulder-movements were good; the face was not affected. Sensation was apparently normal, except that the sensation of tickling on the sole of the foot was nearly or quite lost. The power of localizing correctly any point of the foot touched was retained. Farado-cutaneous sensibility was apparently normal. The man could distinguish hot and cold objects. No pain was elicited on pressing the muscles. The reflexes, both superficial and deep, were completely lost.

Tested with the faradic current, the muscles responded, as nearly as I could judge, normally. The patient's subcutaneous layer of fat was thicker than usual. To the galvanic current the muscles responded normally, contracting quickly without a sign of degenerative reaction, with no quantitative or qualitative alteration. The muscles also contracted from nerve-stimulation. The sphincters were absolutely intact. After this, for three or four days, the paralysis increased in the upper extremities until the man could no longer use his hands. The abdominal muscles became so weak that he could not cough. The facial nerves now became involved in all of their branches, the more decidedly, however, on the left side. The patient could not frown, could not close the left eye, could with effort barely approximate the lids of the right so as to make them touch, and could not whistle. Articulation was somewhat defective from the weakness of the labial muscles. The tongue was unaffected, except that the patient stated that it felt thick. He was restless, and said that he felt as if he was being smothered by his own weight.

The breathing became oppressed, and he had several attacks of threatened suffocation. (The action of the heart was not affected, either in frequency or force.) At this point the progress of the disease seemed to be arrested, and then improvement, especially of the respiratory symptoms, began and proceeded somewhat rapidly, the face and arm recovering first. On the 1st of January, 1892, he could raise himself in bed; on the 7th he sat up on the side of the bed; on the next day he dressed himself; on the 13th he was able to walk alone; and on the 20th he was able to leave the house. I saw him about a month later. His limbs were not thinner than natural, though still a little weak. The patellar reflex was still absent.

This case seems to me worthy of record, because of the very close resemblance of its symptoms to those of Landry's paralysis. Indeed, I do not see why it should not be considered as a case of that disease. It is noticeable that the symptom of oppression and difficulty in breathing that usually closes the scene in fatal cases of Landry's paralysis was prominent, and appeared to lack but little in severity to have caused death.

Dr. Cramer, in the January number of the *Centralblatt f. Pathologie u. pathologische Anatomie*, after having given an admirable analysis of the best-studied cases of Landry's paralysis, concludes that "with the symptom-complex that we call Landry's paralysis, the pe-

[1] Read at the seventh annual meeting of the Association of American Physicians, held at Washington, May 25, 1892.

ripheral nerves alone, as well as the central nervous system with the peripheral nerves, may be diseased" (the peripheral nerves being in almost every case affected); and, moreover, that the origin of the disease is to be found in the toxic influences of invading microörganisms. From this standpoint there seems to me but little difficulty in supposing cases of varying severity and termination, as the central nervous system (the respiratory and cardiac centers) or the nerves of respiration are more or less deeply affected by the toxic agent. One point seems to be impressed by this case—namely, the difficulty, or rather impossibility, in certain cases, of differentiating between the peripheral and central (spinal) origin of symptoms, especially of paralysis. I think we should keep more in mind that the whole motor system—peripheral nerves, nerve-cells, and central tracts—is so much of a unit, that while the insults of disease may confine themselves to one segment of the apparatus, we may reasonably expect disease of one part to extend to others or all.

MEDICAL PROGRESS.

Cysticercus of the Vitreous Body.—At a meeting of the Society of Physicians of Zurich FICK (*Corr.-bl. f. Schweiz. Aerzte*, 1892, No. 9, p. 279) reported the case of a man who, six months previously to coming under observation, noticed a black spot before the right eye; three months later, vision was distorted, and a month later still, became cloudy. For nine days there had been total blindness, only light-perception remaining. The external appearance of the eye was normal. With the ophthalmoscope two masses and some diffuse changes were found in the interior of the eye. One of the masses was a grayish-blue vesicle, with a well-defined reddish-yellow margin, occupying the lower posterior segment of the vitreous body and oscillating with sudden movements of the eye. Vessels could not be seen on the cyst. The second mass, bluish-gray in color, bean-shaped, was situated in the outer upper segment, and was sharply separated from a whitish band in the vitreous body. At the upper extremity of this mass was a whitish area abundantly supplied with vessels. The retina presented diffuse striation; the vitreous body punctate and striate immovable opacities.

The patient was operated on a few days later, and together with the removed specimen was presented at a subsequent meeting of the Society. Some improvement in vision had taken place.

An Unusual Case of Empyema.—RUDOLPH (*Centralbl. für klin. Medicin*, 1892, No. 18, p. 361) has reported the case of a shoemaker's apprentice, eighteen years old, who, twelve days after an attack of pneumonia involving the lower lobe of the left lung and lasting a week, developed pneumonia of the upper lobe of the same lung. After the fifth day of the second attack the febrile movement became irregularly intermittent and occasional chills occurred. Unequivocal signs of an empyema soon manifested themselves. An inch and a half of the seventh rib was resected and two pints of pus were evacuated and the cavity was from time to time irrigated. There was some improvement, but the febrile movement persisted. The signs pointing to the existence of an encapsulated empyema above the situation of that first detected, a little more than an inch of the third rib was resected and four pints of pus evacuated. There appeared to be absolutely no communication between the two cavities. The patient ultimately made practically a perfect recovery; this was somewhat retarded, however, by the presence of a fragment of carious bone in one of the resection-wounds.

Conveyance of Tuberculosis by Bed-bugs.— DEWÈVRE (*Revue de Méd.*, No. 4) reports the case of a boy, eighteen years old, who developed pulmonary tuberculosis after having slept with a brother who had died of the disease. A third brother, with whom the second had slept, had likewise died of tuberculosis. The patient presented numerous bed-bug bites, and it was learned that the bed in which he slept contained a large number of the parasites. Thirty of these were taken and used in the inoculation of three guinea-pigs, all of which died of tuberculosis. Cultures of tubercle-bacilli were also obtained from the diluted and filtered pulp of fifty of the bugs. Cultures were also obtained from bugs taken from healthy surroundings and brought into contact with tuberculous sputum. The bugs must become infected directly from human beings, or indirectly through the medium of the expectoration, or by transmission from one animal to another. The transmission of tuberculosis from the bugs to the human beings remains an open question.—*Wiener medizin. Presse*, 1892, No. 62, p. 90.

Fatal Hemorrhage from the Esophagus in Cirrhosis of the Liver.—At a meeting of the Berlin Society for Internal Medicine, EWALD (*Berliner klin. Wochenschr.*, 1892, No. 23, p. 566), reported the case of a man, fifty years old, with symptoms of advanced cirrhosis of the liver, who shortly after the removal of fourteen quarts of ascitic fluid by puncture, suddenly, without pain or nausea, began to vomit blood. The hemorrhage was repeated, and on the following day death took place. In the absence of nausea, of actual vomiting, and of pain in the region of the stomach, rupture of an esophageal vein was suspected. At the autopsy the liver was found cirrhotic, the esophageal veins dilated and varicose and ruptured in two places. It would seem as if the removal of the pressure upon the abdominal veins by the evacuation of the peritoneal effusion had been followed by the presence of an increased volume of blood in the esophageal veins, which ruptured at the weakest points.

Treatment of Lupus with Tuberculocidin.—At a meeting of the Society of Czech Physicians of Prague, JANOVSKY (*Wiener medizin. Presse*, No. 19, p. 779) presented three of four cases of lupus under treatment with tuberculocidin administered subcutaneously and applied topically. In all, thirty injections had been made without noteworthy constitutional manifestations. In only one instance did the temperature rise as high as 100.4°. There was no visceral affection; albumin did not appear in the urine; the blood presented a state of slight leukocytosis. The local reaction was considerable, though by no means so intense as that which followed injections of tuberculin. Small and large pustules formed in the diseased areas, afterward undergoing desiccation.

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THE CHEMICAL PATHOLOGY OF THE INFECTIOUS DISEASES.

THE problems of physiologic chemistry have heretofore been so baffling, and the solutions so unsatisfactory, that it is but little wonder that so few investigators have been attracted to the field of chemical pathology. The coarseness of the most delicate methods of investigation at the disposal of the chemist, compared with the extreme complexity of the substances with which he has to deal, the instability of the proteid bodies, the impossibility of determining the exact composition of the albumin-molecule, the difficulty in isolating pure materials—all these conditions offer serious obstacles in this study, and beyond the grouping into classes of the proteid bodies and their derivatives, little can be said to have been definitely determined. Despite all this, such researches have received a decided impetus from quite an unexpected quarter. Of late, special attention has been devoted to the examination of the more intimate relations between the specific microörganisms and the tissues of the body in acute infectious diseases; and perhaps the most interesting contributions to our knowledge of these processes during the past two or three years have been those dealing with the subject rather from a chemical standpoint.

The experiments of ROUX and YERSIN, in France, and of BRIEGER and FRAENKEL, in Germany, with the chemical products of LOEFFLER'S bacillus; the work of HANKIN on the "defensive proteids;" the action of the toxine and the production of the antitoxine of pneumonia, elaborated by the KLEMPERERS, of Berlin; the study of the chemical nature of tuberculin, by HUNTER, BEHRING, and others; the very striking effect of the proteins of the protoplasmic bodies of the bacteria themselves, demonstrated by BUCHNER and his assistants, at Munich—these and other similar researches, even though they have as yet yielded but few practical results, have opened up a wide field for speculation, and go far to illumine some of the possibilities of the intelligent application of chemical methods to pathology.

The latest, and by no means the least valuable, of such communications will be found in the Gulstonian lectures recently delivered by DR. SIDNEY MARTIN, in which he takes for his subject, "The Chemical Pathology of Diphtheria Compared with that of Anthrax, Infective Endocarditis, and Tetanus."

In his study of anthrax-infection, DR. MARTIN had already shown that the action of the anthrax-bacillus on proteids is analogous to that of the ferments of the ordinary digestive juices, resembling peptic digestion in the formation of albumoses, and tryptic digestion in that a portion of the proteids is broken up into non-proteid organic bodies, the leucin and tyrosin obtained as end-products from the action of trypsin being represented in anthrax-digestion by an organic base, the so-called "anthrax-alkaloid." These digestion-products of the anthrax-bacillus were found not only in test-tube cultures of the organism, but also in the blood, and particularly in the spleen, of animals that had succumbed to the disease, and it is important to note that the alkaloid was always more abundant than the albumoses. It was possible to separate the alkaloid from the albumoses, and by injecting these substances, singly and together, to compare the symptoms thus artificially produced with those characteristic of the disease. In this way it was proved that the albumoses are the fever-producers, while the anthrax-base (alkaloid) is the cause of the coma and death.

DR. MARTIN devoted the greater part of his recent lectures to the discussion of the chemical products found in the bodies of diphtheria-patients, the methods of isolating them, and the symptoms and histologic lesions to which they give rise. Briefly,

he concludes that the tissues of diphtheria-patients contain two series of abnormal substances: first albumoses, chiefly deutero-albumoses (indistinguishable chemically from the albumoses of ordinary digestion and from the anthrax-albumoses), and secondly, an organic acid, the former being present in larger quantity than the latter. Of the diphtheria-poisons, in contradistinction to the toxic products of anthrax-infection, the albumoses are much more harmful to the animal than is the non-proteid substance. A single dose of the albumoses of 0.084 gram per kilogram of body-weight, injected subcutaneously in a rabbit, caused death in twelve days, and at the autopsy the degenerative changes characteristic of the disease were present.

If these results are to be relied upon, and the experiments appear to have been carefully and conscientiously conducted, then it is to the albumoses in diphtheria that we must attribute the fever, the diarrhea, the loss of body-weight, the retardation of blood-coagulation, and the progressive paralysis of the muscles dependent on degeneration of the peripheral nerves. The injection of the organic acid, it is claimed, produces nerve-degenerations similar to those resulting from albumose-intoxication. There would appear to be some evidence for the view that the immediate action of the *bacillus diphtheriæ* in the membrane is to give rise to a ferment—the so-called secondary infectious agent—quite analogous to the pepsin and trypsin of the gastric and pancreatic juices, for while on chemical analysis the membrane itself is shown to contain very minute quantities of the albumoses, yet a single injection of the proteids precipitated from it will produce results like those obtained from multiple inoculations with the albumoses. The claim of DR. MARTIN, that the same nerve-lesions are produced by the albumoses and the organic acid of diphtheria would seem to require further proof, as there would always exist a possibility that such degenerations might be due not to the albumoses or to the acid, but rather to a toxic agent as yet unknown, most of which is precipitated with the albumoses, while a small portion passes over in the alcoholic extract.

In all the cases of diphtheria, natural and experimental, the central and peripheral nerve-organs were submitted to careful histologic examination; lesions were always found in the peripheral nerves, motor, sensory, and sympathetic, and were as constantly absent in the central organs and large nerve-trunks. Sometimes there was a transverse degeneration of a small nerve, with destruction of its axis-cylinders, when in life there had been complete paralysis of the muscle supplied by the nerve; more often individual fibers were affected, while their neighbors remained intact. Such a condition readily explains the many forms of paresis, or incomplete paralysis, so often met with clinically. A fatty degeneration of the voluntary muscles takes place *pari passu* with the lesions in the nerves supplying them. The heart-muscle was always fatty, even though no change were discoverable in the branches of the vagi going to it, and it is assumed that the fatty changes there must have been due either to the altered blood-condition or to the diphtheritic digestion-products acting as direct cardiac poisons. DR. MARTIN has not only confirmed the researches of DEJERINE and of MEYER, but has carried them still further, and it is almost inexplicable to us how so careful an observer could overlook the changes in the lymphatic apparatus and supra-renals; whereas, in these organs, which he describes as normal, decided retrogressive changes have been found (WELCH and FLEXNER, 1891).

The material available for the chemical study of infective endocarditis and of tetanus was very limited, only one case of each having as yet been examined. What has been done, however, would make it appear that in infective endocarditis the products resemble those of anthrax-infection, while in tetanus they more nearly approach those of diphtheria. This is exactly what might have been expected, since in anthrax and infective endocarditis the organisms invade the tissues generally, while in diphtheria and tetanus the organisms remain at the site of inoculation.

We must regard as in the highest degree ingenious the theory as to the rôle played by the spleen in the pathologic process. The tissues of this organ always contained relatively large quantities of the poisons, and the idea is advanced that the spleen is to be looked upon not only as the depository, but also as the chief manufactory for them, the explanation being that the blood leaving the vessels in the spleen-pulp runs out into the sinuses among the cells, whence results a condition of stagnation. The microörganisms in anthrax and in infective endocarditis, and the ferment (absorbed from the local lesion) in diphtheria and tetanus, find there a quiet spot in which to exercise their digestive functions, and convert the proteids first into hetero-albumose, and later into proto-albumose and deutero-albumose,

with the formation of by-products, which last have in some cases an alkaline, in others an acid reaction. In like maner pathologic effusions previously present in the body, or those produced in the course of the disease, afford (it is thought) a suitable medium for the increase of the infective agents themselves, and for the formation of their digestion-products, since in such effusions proteids are held in a slightly alkaline solution, and are removed from the active metabolic processes of the body.

It would seem, therefore, that just as there is a specific primary infective agent, so there are no less specific chemical products for each disease. These products are distinguishable to a certain extent chemically, but to a far greater extent by their physiologic action. Thus, we have a further means of deciding which is the genuine primary infective agent in a given disease, and DR. MARTIN suggests that to the four rules of KOCH there be added a fifth, namely, that "The chemical poisons must be obtained from the tissues in the natural disease, and products with a similar physiological action proved to be formed by the primary infective agent when grown outside the body." In a disease like Asiatic cholera, which is constantly associated with the comma-bacillus, but in which the application of all of the four requirements of KOCH is at present impossible, the fulfilment of this fifth requirement would afford valuable confirmatory evidence in settling the question of etiology.

The fact mentioned in the closing lecture, that in these experiments no antitoxine was produced in the test-tube cultures of any organism, is merely negative, since the supporters of the theory of antitoxine-formation have not claimed that these substances are manufactured save through the direct action of the living blood-serum.

On reading these lectures we cannot help feeling hopeful as to the future of chemical pathology, although we must not be too sanguine, since the best organic chemists of the day regard the theories based upon the supposed nature of the proteid substances as mere conjectural hypotheses.

SEXUAL HYPOCHONDRIASIS.

IN addition to the large number of cases presenting themselves to the physician for the relief of various real disorders of the genito-urinary apparatus, there is another group, including a portion of the first, the constituents of which manifest great perturbation of mind in consequence of some imaginary affection of the generative system. The greatest number of this second class is made up of males at the period of adolescence.

The two most important, if not the sole, factors that lead to the condition under consideration are masturbation and excessive venery. The patients often present the peculiar aspect and behavior of conscious guilt by which the clinician is sometimes at a glance able to divine the diagnosis.

The more common symptoms of which the patients complain are a "loss of ambition," an inability to concentrate the mind, a sense of weakness, a "lightness in the head," disturbed sleep, impaired appetite, and deranged digestion. Sometimes a patient who has familiarized himself with the popular literature on the subject (of which there is a pernicious superabundance) will frankly volunteer the information of his excesses; another will complain of nocturnal or even diurnal seminal emissions or of other derangement in the sexual sphere. Very often morbid fears have been engendered by the vivid descriptions of unscrupulous persons skilful in the art of playing upon the imagination of the credulous. Visions of "lost manhood," of impaired virility, etc., float before the victim's eyes, and in despair at the failure of the nostrums that promised certain relief, he comes to the physician requiring treatment rather for a diseased mind than for a diseased body.

It will depend upon the skill and insight of the physician whether he shall accomplish an apparently marvellous cure or confirm the direst anticipations of the unfortunate patient. Success in treatment will not depend upon the administration of drugs, nor as a rule will argument convince the patient of the falsity of his absurd notions. He must be convinced and cured by the logic of demonstration.

The most important factor in treatment is support of the morale. The nervous system will require close attention. The condition is probably one of reactive depression with irritability. Sedatives are not so much demanded as stimulants. Of course, the mode of life must be regulated. We are convinced that if in these cases in males the rest-cure could be carried out as it is in their female analogues it would yield the same brilliant results.

Regularity is essential as to meals, as to sleep, as to occupation. Thought and association must be purified and made cheerful, healthful, and con-

genial. The patient must be taught to lose his consciousness of self. The cold bath, followed by thorough friction, is the best stimulant. Walking and other out-of-door exercise is a most useful expedient. It need scarcely be said that when organic lesions are present these should, if remediable, be corrected. The medicinal agents that seem to do the most good are arsenic, phosphorus, and strychnine.

SELECTION.

THE VITALINE CRAZE.

To call it consternation is not too strong a term; for although we do not accredit the statement that ten thousand people in Russia have received injections of the stuff "vitaline," there is without doubt a panic on the subject of this injection—this most absurd so-styled "rejuvenator" of old idiots and antidotal preserver of young ones. The story of the "discovery" of this "new remedy" is an old story revived. A wanderer from his native land, this time one Gatchkowsky, an engineer, was sent on his own business into the Trans-Caspian territory, and there, amongst a primitive people, he heard of a new specific. "A Chinese *savant*" revealed to him the particulars of a miraculous compound medicine which, being instilled into the blood of man, would cure everything; it was more than a mere panacea; it was a "rejuvenator," a curer of such fatal diseases as consumption of the lungs without fail. All previous wonders were to be surpassed by it, and the scientific world was once more to be set in commotion by a discovery that should show how natural law in disease could be overthrown in wholesale fashion. For a time—happily short, yet long enough—the new practice made its way, and we are told the regular practitioners of medicine in St. Petersburg were dumfounded by the presence of the "tide of fashion and of favor" that set in. To some invalids, real or supposed, the "vitaline" was administered by injection subcutaneously; to others it was administered internally. Prices for the remedy and its application varied; the rich paid largest fees, but the poor also paid, and some of them also largely. The Czar himself was counselled—by whom is not known, but we should suppose not by any authorized medical adviser—to let his son, the Grand Duke George, undergo the treatment. At last a somewhat less important man, but still one of great importance, was subjected to the remedy, and he, General Gresser, the Prefect of St. Petersburg, and one of the firmest and shrewdest of the guardians of the imperial power, was led to submit himself to the operation, and by the submission sacrificed his life. How, precisely, the sacrifice was brought about we have as yet no satisfactory details. The discoverer of "vitaline" turned round in his defence from the sublime to the ridiculous. The omnipotent remedy at once diminished from its potency into a mere mixture of borax and glycerin—a harmless mixture for good or for evil. If death resulted from the use of it, a dirty syringe used for the injection must have been the true cause; but M. Gatchkowsky, having made a clean breast of his discovery, will practise the art of cure no more; and if he be not, in the panic, charged with political offence and of systematically poisoning the Prefect, he is fortunate. The history of this latest blast of quackery recalls some of olden times which it has been the duty of *The Lancet* to expose and trample out. The case of the notorious St. John Long comes at once to mind. In this case the results which followed the practice of the astute quack were practically the same as those we have just witnessed. What is more, the secret, which Long sold, as was reported, for £3000 to a lady of fashion, turned out, in the end, to be no secret at all. The element of treatment was counter-irritation, and the vaunted composition employed as a liniment was nothing more and nothing less than spirit of turpentine and strong acetic acid. One day the famous nostrum went wrong in its action; it caused, or was accused of causing, a diffuse cellulitis in an unfortunate victim, and then not only was its fate sealed, but in defence the secret was exploded in proof of its harmlessness and its perfect simplicity. Against this specimen of quackery the founder of *The Lancet* fought tooth and nail. He neither hesitated nor paused until the mischievous practice was expelled for good. In this fight, moreover, he had not the whole voice of the profession with him. On the contrary, one man in the profession stood by the delusion to the last, and vainly maintained his advocacy of it after the bubble had burst and its inventor with it. It is our business still to expose, and protest against, these frauds on humanity, exploited as they are at the risk of human suffering and death.—*Lancet.*

REVIEWS.

A MANUAL OF OPERATIVE SURGERY. By FREDERICK TREVES, F.R.C.S. Two volumes, octavo, pp. xvi, 775; xviii, 775. Philadelphia: Lea Bros. & Co., 1892.

JACOBSON, GREIG-SMITH, and TREVES, form a triumvirate of which English surgery may well be proud. Mr. Treves's handsome work has been on our office-table for some time past, and we have consulted it repeatedly, and almost always with great satisfaction. It lacks the admirable and trustworthy indications for treatment, and many of the little practical hints that Jacobson gives. It is not so full in detail, nor yet so limited in scope as Greig-Smith, but it shows on every page the practical and experienced surgeon, whose anatomy is a help, and not a hindrance to his surgery, and who thoroughly understands surgery as a handicraft. It is a book born of experience, and enlarged by wide judicious reading. In fact, it is a great pleasure to note that the three gentlemen whose *Surgeries* have been alluded to, have culled from every part of the surgical field, and have shown a just appreciation of the excellent work done by American surgeons. In this respect this work is a happy contrast to most of the Continental *Surgeries*, which scarcely turn their eyes toward the West.

Mr. Treves's book opens with some excellent general principles. He shows occasionally a sententiousness and an epigrammatic turn of expression that are admirable. In enumerating the qualifications of the "skilled handicraftsman," he says: "A shakiness of the hand may

be some bar to the success of an operation, but he of a shaky mind is hopeless. In the holding of a sharp instrument in connection with the human body, a confusion of the intellect is worse than chorea." Again, he well puts the question of the length of incision as follows: "Surgeons who boast of the smallness of their incisions are proud of what is at most a questionable feat. . . . There can be no possible object in attempting to ligate the common carotid through an incision an inch long. It can be done as a feat; as a surgical procedure, it involves much cutting in the dark, and adds quite unnecessary danger to the operation."

We notice that he gives very little space to the directions for antiseptic surgery, which seems to us a mistake of omission. Mr. Treves calls attention to the object of sutures, that this is not to close the cut in the skin only. "The main wound," as he says, "is represented by two large *raw surfaces* which lie beneath the integument." Hence, the obliteration of the wound-cavity, rather than simply sewing up the rent in the integument, is what is to be aimed at. Again, in drainage we observe that he urges that drainage-tubes should be removed in twenty-four, or at most thirty, hours after the operation. To leave them longer, as a rule, means simply to create a sinus. His practical sense shows itself in his advice to keep the wounded part uncovered by the bed-clothes, since the atmosphere under the bed-clothes "is hot and moist, and frequently foul, as after the use of the bed-pan and escape of flatus. If there be any truth in the principles which underlie antiseptic surgery, no atmosphere could be worse for a wound." It is interesting to note that he gives proper credit to Physick, of Philadelphia, for having introduced animal ligatures in 1814.

As a rule, he shows a judicial mind in weighing the advantages and disadvantages in different operations or different methods of operation. He is not too positive when there is much to be said on two sides, and yet he is not lacking in decision. For instance, in the operations of lumbar and iliac colotomy, he gives the advantages and disadvantages of each operation, and then, without being dogmatic, says that he for one is disposed to agree with Mr. Bryant in his final conclusion in favor of lumbar colotomy. We note, by the way, that he says the more precise terms would be *colostomy* for a permanent, and *colotomy* for a temporary opening. It would seem at the present day desirable that the nomenclature of these operations on the colon should be made to conform with other similar names, such as gastrotomy and gastrostomy, enterotomy, and enterostomy, etc. It is noticeable, also, that he correctly spells a name so often incorrectly written, viz: Littre. This is correctly given without the accented "é," although so good an authority as Billings, in the *National Medical Dictionary*, spells it with the accent.

We are very glad to observe that he takes strong ground in favor of the intra-peritoneal treatment of the stump after hysterectomy. The statistics of this method will, before long, have to be recast, and we have no doubt that, with the modern means that have been introduced, it will very soon show percentages of recoveries surpassing those of the obnoxious extra-peritoneal treatment.

In the section on operations on the rectum, we are rather surprised to see no mention made of either Kraske's operations or the various modifications by Hochenegg, Bardenheuer, or Rose. In the operations on the brain, the cut of Hopkins's rongeur forceps is certainly incorrect, if it is meant to figure the well-known rongeur of the Philadelphia surgeon.

A few matters in which this book could be slightly improved we have pointed out. On the whole, it is one of the best books descriptive of surgical technique that we know, and we can confidently commend it to the profession as one in which the surgeon will almost always find precisely what he desires to know from the operative point of view.

THE PATHOLOGY, DIAGNOSIS, AND TREATMENT OF INTRA-CRANIAL GROWTHS. By PHILIP COOMBS KNAPP, A.M., M.D. (Harvard). Fiske Fund Prize Dissertation, No. XLI. Boston: Press of Rockwell & Churchill, 1891.

THIS volume affords one of the best illustrations and examples of the usefulness, advantages, and value of trustee prizes, and of the necessity that exists for them, or their like and counterpart, to bring out the best exertions of which some men—some of the best workers—are capable. Many such men are all the while the best of workers, or capable of the very best work, and yet fail to give it to the public, not because the work has not been performed; not from lack of opportunity or thoroughfare of communication, but from lack of incentive, from want of occasion or of the subject or of the point of direction.

Would that more such "suggestive" prizes existed among us! That other fields of work than medicine attract most able workers, giving prizes in fame and fortune beyond compare, is true. Nevertheless, medicine sees a constant stream of workers of ability equal to that of these others who would content themselves with the modest fame coming from prizes like this one, and men withal who would willingly await the modest rewards that at the best are likely to accrue to the most successful of the medical profession.

The book itself, as by the necessities accompanying its prizeship, is most admirable, and it contains, with the accompanying references and tables, the essentials requisite for anyone attaining to a full, a thorough knowledge of the question in hand.

The subject of "brain tumors," as in times past it was named, but now, in the era of operative treatment, better spoken of as "brain pathology," as "intra-cranial lesions," has had a most picturesque and most graded process of development. Symptomatologically the advance has been probably more strikingly conspicuous than in any other lesion of the organism.

In literature the subject exhibits even more sharp demarkations. Before 1850 all observations of intra-cranial gross lesions were most diffuse, if not also most vague. From 1850 to 1860 gave us the period of symptomatology. From 1860 to 1870 inaugurated the exactitude of diagnosis by means of the ophthalmoscope; it is Von Graefe to whom we turn with thanks for this development.

To-day it is—from 1870 onward—that we see the symptoms of localization definitely studied — so very definitely that the surgeon's knife may reach the seat of

the growth and perhaps remove the mass. Whether or not the results are to be distinctly and as definitely beneficial the following decade is to be the sole judge.

Of the literature, of the clinical records of brain tumors, Ladame, in his volume, *Symptomatologie und Diagnostik der Hirngeschwülste*, has collected very nearly completely all the records until 1860. The present volume does not cover with as great thoroughness the localization and operative period (1870–1880) as does Ladame's work; perhaps such completeness of compilation is no longer possible, so great has become the mass of clinical records.

The period of the ophthalmoscopic study—which today seems somewhat neglected, even for routine diagnostic work—has not as yet been given. It is much needed to complete the essentials of brain pathology. Should Dr. Knapp wish to prosecute the labor he has so very well begun, the writer of this review is able to put him in possession of a complete collection in manuscript form of all the cases of brain tumors confirmed by a post-mortem examination published during the period from 1860–70.

A TEXT-BOOK OF NURSING. FOR THE USE OF TRAINING-SCHOOLS, FAMILIES, AND PRIVATE STUDENTS. Compiled by CLARA S. WEEKS-SHAW, Graduate of the New York City Hospital Training-school for Nurses. Second edition, revised and enlarged, with illustrations. New York: D. Appleton & Co., 1892.

THIS book first appeared about six years ago, and is the best text-book for the general instruction of nurses that we have. The present revised edition was much needed in order to keep the work in touch with the latest methods of teaching in the medical profession, particularly in antiseptic surgery, and the additional chapter on gynecology fills a want that was much felt in the previous edition. The subject-matter of the book is especially adapted for hospital nursing, and the order of subjects is carefully arranged in twenty-five chapters, beginning with the simplest and those requiring to be taught first.

If anatomy and physiology are taught in connection with the use of this text-book, as the author advises, the repetition of the anatomy of the heart, lungs, and blood-vessels and the description and classification of the bones would hardly seem necessary.

The book deserves to be in the possession of every trained nurse and in every training-school library.

LEHRBUCH DER AUSCULTATION UND PERCUSSION MIT BESONDERER BERÜCKSICHTIGUNG DER BESICHTIGUNG, BETASTUNG UND MESSUNG DER BRUST UND DES UNTERLEIBES ZU DIAGNOSTISCHEN ZWECKEN. Von DR. C. GERHARDT, Professor der Medizin und Geh. Med.-Rath in Berlin. Fünfte, vermehrte und verbesserte Auflage, mit 49 in den Text gedruckten Holzschnitten. Tübingen: Verlag der H. Laupp'schen Buchhandlung, 1890.

IN the preface of this, fifth, edition of his work, Gerhardt says: "Wherefore percuss? We can stain sputa, and by the number of bacilli not alone recognize the existence of phthisis, but also observe its progress. Those who will delight only in the new, yea in the newest, might accept this dictum with satisfaction. He who seeks for a means of complete diagnosis of the many-sided morbid processes, will not omit the exploration methods of Laennec and Skoda, but will learn from extended use more and more to prize these, the most solid foundations of our diagnostic art."

The book is too well and too favorably known to require extended review at the present time. It has been enlarged and enriched with the recent fruits of the author's wide observation. It deals not only with the lungs and heart, but with the whole organism, and it systematically and thoroughly discusses the whole subject of diagnosis by means of sound, giving the physiologic, anatomic, and acoustic groundwork of theory and methods, and the experiential lessons of pathology and clinical observation as to the diagnostic value of the signs thus elicited.

While the author has diligently studied the works of others and gives them due credit, yet the book is stamped throughout with the impress of original thought and independent observation. No one who aims to be thoroughly informed upon the subject can afford not to study it.

LECTURES ON PATHOLOGY, DELIVERED AT THE LONDON HOSPITAL BY THE LATE HENRY GAWEN SUTTON, M.B., F.R.C.P. Edited by MAURICE EDEN PAUL, M.D., and revised by SAMUEL WILKS, M.D., LL.D., F.R.S. Philadelphia: P. Blakiston, Son & Co., 1891.

THE book consists of a number of clinico-pathologic discourses on a great variety of subjects. The title does not indicate the scope of the work as well as did that of a previous book by the author on "Medical Pathology," the greater part of which is here reproduced. Of the fifty-two chapters or lectures we may name those on Anemia, Struma, Smallpox, Dysentery, Gonorrheal Rheumatism, Purpura, Typhoid Fever, Diabetes, Kidney Diseases, and Heart Disease, as indicating the wide scope of the work and the character of subjects discussed. Though we may be disposed to agree with the editor that the book will be more acceptable to Dr. Sutton's former pupils, published as it is as nearly as possible in his own words, we cannot agree that this was the best plan, when other readers are considered. There is something gained, but more lost.

These lectures contain an immense fund of clinical observations, which are of all the more value since, at every step, clinical facts are traced back to their pathologic foundation. It is the living active pathologic teaching of the clinician, rather than that of the anatomist, which is here detailed. It is a matter of great regret that death prevented the revision of the lectures by the author, since many of them were delivered several years since, and doubtless much would have been altered. Particularly would it have been desirable to obtain a definite expression in regard to the relation of bacteria to disease, a question that will scarcely be considered settled by this generation of readers in the conservative manner in which the lecturer regarded it.

The Langenbeck-Haus, intended as the meeting-place of the various medical organizations of Berlin, was opened on June 8, with appropriate ceremonies.

SOCIETY PROCEEDINGS.

THE AMERICAN ASSOCIATION OF ANDROLOGY AND SYPHILOLOGY.

Sixth Annual Meeting, held at Richfield Springs, N. Y., June 21 and 22, 1892.

FIRST DAY—JUNE 21ST.

DR. GEORGE CHISMORE, of San Francisco, read a paper entitled "A New Form of Lithotrite and Aspirator, with Cases Illustrating Their Use." The instrument exhibited consists of a combined crushing and evacuating lithotrite. The male blade is solid, and furnished with Bigelow's lock and screw power, both fitting the same female blade. The male blade has a channel of sufficient size to enable the aspirator to suck pieces of stone into the open jaws, yet leaving metal enough to allow the application of the screw. The wash-bottle consists of a rubber-bag so shaped as to comfortably fit the hand and a glass reservoir. Dr. Chismore then gave the history of ten cases of stone in the bladder operated on by the method described, in addition to fifty others reported to the Association at a previous meeting.

DR. L. BOLTON BANGS, of New York, stated that he was much interested in the form of lithotrite presented. He noticed that the instrument was non-fenestrated, and thought that there might be some danger of catching the wall of the bladder in closing the blades. He considered the wash-bottle shown a most useful one, and extremely simple.

DR. JOHN P. BRYSON, of St. Louis, thought the operator could recognize very quickly whether any of the bladder was caught in the instrument. Besides, the female blade projects for a considerable distance beyond the male blade, and thus acts as a safe-guard. He considers the simplicity of the wash-bottle one of the chief advantages of the instrument. This obviates the constant removal and re-introduction of the instrument, as a result of which the prostatic sinus of the urethra is likely to be bruised. Finally, the instrument renders the operation easier, and places it in the hands of the general surgeon. He has seen supra-pubic cystotomy performed a number of times for stones that could have been removed more easily by the lithotrite.

DR. ARTHUR T. CABOT, of Boston, stated that he seldom uses a lithotrite with a fenestrated blade. He habitually employs Bigelow's instrument, with the solid female blade. In crushing a phosphatic stone with a fenestrated instrument fragments of the stone are likely to be thrust through the female blade, and thus hinder the operation. With the solid blade there is less likelihood of injury to the bladder-wall. Dr. Cabot considers Dr. Chismore's arrangement an excellent one for crushing small fragments of stone.

DR. W. K. OTIS, of New York, described "The Perfected Electro-Urethroscope," which represented a further improvement of the modification of the Leiter instrument for urethral inspection, shown at a previous meeting of the Association. A plain lens has been substituted for the mirror formerly employed, making the instrument less expensive, and shutting off all extraneous light. A small electric lamp is employed for illumination.

DR. E. R. PALMER, of Louisville, Ky., presented "A Contribution to the Physiology of Sexual Impotence." He divided his subject into two sections, namely (1), physiologic impotence of the male, without any regard to sterility, and (2) physiologic impotence of the female, with a like disregard of her procreative powers, avoiding as far as possible all of the many pathologic influences and effects that are recognized by the profession in this connection. He ascribed the impotence of youth largely to the common misconception with which the emission of semen is viewed. The youth is taught that semen is a marvellous product, a thousandfold more precious than even blood itself. This popular doctrine, Dr. Palmer considers an egregious error and a blunder unwarranted either by analogy or by fact. There is no evidence that in the regular use of the testicles, they, like glands and organs generally, are not developed and strengthened, rather than weakened and exhausted. Dr. Palmer contended that within reasonable bounds the regular and frequent use of the sexual organs tends to an increase of their power, while irregular use and continence are in many cases of sexual failure hurtful. The impotence of youth is the impotence of inexperience rather than of incapacity.

Turning from the physiologic impotence of the male youth Dr. Palmer took up the question of sexual failure in otherwise healthy men in the prime of life. Here again is to be met and combated the common explanation, "You are reaping the fruits of self-abuse, or the excesses of your early life; you have, by one or both of these means, worn out your precious powers, and there is no hope for you." Among the ranks of these are many that not only were not addicted to excessive self-abuse in boyhood, and were not libertines in later years, but justly enjoy the reputation of being moral family men. These cases include a not inconsiderable number of passionate men; others that fear a waning of their powers and begin to practise conservative continence; and still others that are absorbed in business cares and worries during the day.

Dr. Palmer held essential the study of the maid, wife, and mother from the standpoint of physiologic impotence. The ideal young woman is almost necessarily impotent. From time immemorial the prerequisites in her moral and social qualifications have been modesty and chastity. That a universal law, acting through ages, calling for unquestioned chastity in maid and mother, should have had its effect in a large proportion of the sex in modifying the sexual organs and desires, is not surprising; that it has not absolutely extirpated feminine sensuality is perhaps more surprising.

In conclusion, Dr. Palmer stated that the primarily ruling causes in sexual impotence and incompatibility to-day are evolutional in nature. The influence of heredity has made man abnormally and perversely sensual, and woman sluggish to a degree little short of absolute incapacity.

DR. BRYSON expressed the belief that the man never lost any of his sexual power by abstinence.

DR. CABOT stated that in regard to men engrossed with business cares there is a general nervous exhaustion, involving also their sexual powers.

DR. SAMUEL ALEXANDER, of New York, read a paper entitled "Congenital Deformity of External Female Genitals, Entire Absence of Urethra; Spontaneous Dorsal

Dislocation of the Hip as the Result of Efforts to Retain Urine; Correction of Deformity and Restoration of Urethra by Plastic Operation; with Some Observations Upon the Technique of Urethral Catheterism." The patient was a girl fifteen years old, born without urethra, the bladder opening just below the pubis by an orifice sufficiently large to admit the little finger. There was incontinence of urine, except when the legs were strongly adducted. At birth there was no other malformation, and until the age of eleven the hips and legs were symmetrical. Four years ago the girl was kicked on the left buttock. Lameness became marked, and the left thigh became strongly adducted and flexed upon the trunk. On March 21, 1892, Dr. Alexander performed a plastic operation to restore the urethra, the ureters having been catheterized a few days previously as a preliminary step. The operation consisted in making a new urethra and in bringing together the upper portion of the labia majora so as to cover the orifice of the new canal. The urethra was twisted upon itself and stitched in place by uniting a portion of its margin with the vaginal septum. Two subsequent sittings were required to satisfactorily complete the operation. As a result the girl has control over her urine at all times, and can retain it for four hours during the day and for eight hours at night. By uniting the upper portion of the nymphæ, the vaginal orifice was not closed, and yet the necessary pressure for the urethra was obtained. In referring to the mechanism of micturition and the cause of the desire to pass water, Dr. Alexander stated that his own observations have led him to adopt the views of Guyon and others of the Necker School, that the contraction of the wall of the bladder is the principal cause.

DR. A. T. CABOT, of Boston, reported a "Case of Sacculated Bladder, with Autopsy." The patient was a man, fifty-seven years old, who first presented himself in November, 1889, suffering with symptoms of stone in the bladder. A few days afterward a stone weighing 116 grains, composed of uric acid and urates, was removed by litholapaxy. The man made a good recovery. In March, 1891, he reported that, although much improved after the first operation, he was not entirely relieved of his symptoms. After a perineal incision the finger could touch a little rough stone high up on the posterior wall. It being impossible to dislodge it, a supra-pubic opening was made, through which the stone could be readily reached. It was about the size of an English walnut, and was contained in a pocket, the neck of which was not larger than a small pencil. The stone was broken by the forceps and removed piecemeal. About April 6th, the urine, which had hitherto been abundant, began to diminish in quantity; it contained a little pus, but no casts were detected. In spite of all efforts the man gradually failed, and died about six weeks afterward. At the autopsy, two pockets of the bladder-wall were found; they were arranged symmetrically, one associated with each ureter, lying a little above and outside of it. One of these pockets had contained the stone previously removed. A number of smaller pockets were also discovered. These pockets, Dr. Cabot said, were probably congenital. The right kidney was found shrunken and in a state of interstitial nephritis, associated with a pyelonephritis, and this condition led to the fatal result.

DR. BANGS reported a case of sacculated bladder, in which the patient (who had suffered for several years with retention of urine), in attempting to relieve himself, suddenly experienced a sense of relief, and at the same time felt a pain in the abdomen. He died before an operation could be undertaken. At the autopsy, the bladder was found hypertrophied, with minute sacculi in the bladder-wall, a number of which contained stone. One of these sacculi had ruptured.

DR. BRYSON referred to the fact that in cases of acquired sacculi the muscular coat of the bladder separates, and the mucous coat sinks in, and a hernia of the bladder-wall results.

DR. ROBERT W. TAYLOR, of New York, read a paper on "The Pigmentary Syphilide." He stated that the primordial pigmentary anomalies due to syphilis consist essentially in a hyper-pigmentation, which may in whole or in part be replaced by a corresponding loss of color or leukodermatous condition. This primordial hyperpigmentation is the essential pigmentary syphilide. All other discolorations are secondary processes, and are not to be classed as pigmentary syphilides. The pigmentary syphilide is seen in three well-marked and quite distinct conditions: 1. As spots or patches of various size; 2. As a diffuse pigmentation of greater or less intensity, which sooner or later becomes the seat of leukodermatous changes in the shape of small spots that gradually increase in size; this is the retiform pigmentary syphilide; 3. In an abnormal distribution of the pigment of the skin, in which, owing to the lack or crowding out of the pigment in places, areas become whiter, while the parts invaded in the abnormal distribution become darker. In this way a dappled appearance is presented. This form has been termed the marmoraceous form, from its resemblance to some forms of marble, in which there is an interblending of light and dark colors. It is not common, and is peculiarly liable, on account of its delicacy of tone and tint, to pass unobserved.

DR. P. A. MORROW stated that he has observed a number of cases of pigmentary syphilide, which is recognized as a comparatively rare affection. Whether the leukoderma is primary or secondary has not been definitely settled. Many still claim that the essential process is an achroma. Dr. Morrow stated that he is inclined to accept the view of Dr. Taylor, namely, that the essential process is a hyperchroma, and that the white spots that form so characteristic and typical a feature are secondary.

DR. J. A. FORDYCE, of New York, stated that he has been on the lookout for a primary pigmentary syphilide for a long time, and he considers it an extremely rare affection. The second variety mentioned by Dr. Taylor is not so uncommon. Some writers claim that the loss and increase of pigment are coincident.

DR. TAYLOR, in closing the discussion, stated that in the cases mentioned in his paper, of which he presented illustrations, he had watched the process from beginning to end. In some cases the whole brown expanse is formed before atrophy takes place; in other cases the atrophy does not occur at all.

DR. JOHN A. FORDYCE, of New York, read a paper on "The Pathology of Syphilitic Nephritis." He related that at the last meeting of the Association he had briefly reported the history of a case of inflammation of the kidney, which had set in acutely in a previously healthy

man, thirty-four years old, four months after the appearance of the initial syphilitic lesion on the finger. The patient passed through a number of uremic accidents, and after the nephritis had existed for about three and one-half years the man died from uremic coma. An autopsy, made twelve hours after death, disclosed a general edema of the subcutaneous tissue. The kidneys were both below the average size; the capsules were somewhat adherent; their surfaces were granular. A small cyst containing about one dram of fluid was found beneath the capsule of the right kidney. On section, the organs were exceedingly firm. A mass of bluish-gray tissue that made up about one-half of the bulk of the right kidney, cut with difficulty, and seemed to be made up entirely of connective tissue. Upon microscopic examination, few normal Malpighian bodies were found. Many of them showed marked thickening of Bowman's capsule, and a homogeneous degeneration (probably hyaline) of the capillary vessels making up the glomerulus. A transverse section of the blood-vessels showed a marked thickening of their walls. The greater portion of the section was made up of a new-growth of connective tissue, the bulk of which was of comparatively recent formation; scattered throughout the section were numerous foci, showing that the interstitial process was in an active stage. While nothing absolutely pathognomonic of syphilis could be claimed, either for the clinical symptoms or the anatomic changes, Dr. Fordyce stated that he felt confident that the exciting cause of the malady was the specific infection, as careful search failed to elicit any other possible factor in its causation. In some cases of early syphilitic nephritis mercury has seemed to exert its specific effect on the kidney-lesions, and to bring about a speedy cure, while in others a fatal termination has taken place during or following the administration of the drug.

DR. R. W. TAYLOR stated that the subject of syphilitic nephritis is still in its infancy. It is known that late in the course of syphilis kidney-affections are occasionally found; then the question arises, whether the affection of the kidney is due to syphilis or to something else.

DR. P. A. MORROW stated that the occurrence of nephritis in the course of syphilis, whether as the result of the syphilitic infection or as an accidental inflammation, is more common than is generally supposed. His experience as to the effect of mercury on such a nephritis has proven very contradictory. In two or three cases the symptoms were apparently aggravated by the use of the drug; in other cases the results were most brilliant.

DR. E. L. KEYES, of New York, stated that he had seen a number of cases in which albuminuria appeared in early syphilis, and his impression is decided that the mercurial treatment is of advantage.

DR. TAYLOR stated that he is in the habit of examining the urine of syphilitic patients. Few cases present signs of kidney-involvement—perhaps from three to five per cent. They are usually amenable to properly directed mercurial treatment.

In closing the discussion DR. FORDYCE stated that the case reported by him would not respond to treatment by mercury given internally, by inunction, etc. In a number of cases on record, an existing nephritis seems to have been aggravated by the use of mercury.

DR. SAMUEL ALEXANDER, of New York, presented a communication entitled "Observations in Regard to the Pathology and Pathological Anatomy of Nodular or Granular Cystitis; Preliminary Paper."

The following conclusions were reached: The occurrence of nodules upon the mucous membrane of the bladder as the result of cystitis is not very uncommon; these nodules are frequently mistaken for tuberculous nodules; they consist of a very vascular lymphatic tissue, arranged in circumscribed foci resembling the follicles of the intestinal mucous membrane, but presenting more diffuse masses of cells; the occurrence of these nodules mparts a peculiar character to the clinical aspect of a cystitis, as manifested by pain, hemorrhage, protracted duration, and a great tendency to relapse; these lymph-nodules are simply the normal lymph-nodules of the bladder, enlarged. Nodular and tubercular cystitis may often coexist, but they are not to be regarded as the results of tuberculous infection.

DR. F. TILDEN BROWN, of New York, read a report of "Unusual Microscopic Bodies Found in the Secretions and Urinary Sediment of a Patient Suffering for Seventeen Years with Urethral Discharge." He related the history of a case in which a peculiar worm was found in the secretions and urinary sediment. The average length of the worm was about one millimeter, being much larger than the ordinary filaria sanguinis hominis; the largest one was about three millimeters in length. The parasite was very difficult to stain. The body was not segmented.

DR. E. L. KEYES, of New York, read a paper on "Relapsing Villous Papilloma of the Bladder." He reported a case in which a villous papilloma as large as a good-sized Mandarin orange, with a pedicle as large as an ordinary lead-pencil, was extracted from the bladder by a supra-pubic operation in November, 1886. In 1891 the symptoms returned, and a relapse of the papillomatous condition was clearly manifest. A second operation was performed in January, 1892. An incision was made above the pubis through the original scar, but the peritoneum was found to be so firmly bound down to the bladder that this avenue of approach was abandoned and a perineal opening made. Upon the site of the original villous growth was found a pedunculated villous tumor, which was removed with a sharp spoon.

DR. BRYSON narrated a case in which he removed a large villous growth from the wall of the bladder; the patient got well, but immediately after the operation he exhibited a good deal of mental disturbance, suffering from insomnia and delusions. These manifestations were ascribed to the use of the anesthetic; they finally subsided, and the man became perfectly well.

DR. KEYES stated that he also had a case in which the removal of a tumor from the bladder was followed by mental aberration.

DR. CABOT stated that in a case of villous growth of the bladder upon which he had operated, the patient, a physician, became very irritable, and acted strangely after the operation; he finally became insane and was committed to an asylum. Whether or not the operation had anything to do with the mental condition, however, was doubtful, as it was stated that the man had previously shown signs of mental weakness.

SECOND DAY—JUNE 22D.

The following officers were elected for the ensuing year: President, Dr. Edward R. Palmer, of Louisville, Ky.; Vice-President, Dr. L. Bolton Bangs, New York; Secretary, Dr. John A. Fordyce, of New York.

It was also decided to change the name of the Association to the American Association of Genito-Urinary Surgeons. The next meeting is to be held at Cumberland Gap, Tenn., in June, 1893.

The discussion on "Prostatectomy" was opened by a communication from DR. WILLIAM T. BELFIELD, of Chicago. From a study of 133 operations upon the enlarged prostate the following conclusions were arrived at: 1. In the majority of prostatics the failure to evacuate the bladder is due not to degeneration of the vesical muscles, but to the mechanical obstruction offered by the prostatic growth. 2. This obstruction is usually of such form as to be overcome by operative measures. 3. These measures should secure restoration of a low-level urethra by removal of the prostatic obstacles, thorough stretching of the prostatic urethra and temporary drainage of the bladder. 4. From the anatomic standpoint, suprapubic cystotomy is, in the abstract, with certain exceptions, preferable to perineal cystotomy. The perineal approach to the prostate, however, should be selected for feeble patients.

DR. JOHN P. BRYSON, of St. Louis, read a paper on "Prostato-Myomectomy by the Supra-pubic Route; with a Report of Results Obtained in Eleven Cases." He detailed the histories of eleven cases in which he had operated upon the prostate. He expressed the view that the more closely the symptoms of prostatic overgrowth resemble those of a foreign body or tumor in the bladder the stronger the reason is for operation.

DR. WILLIAM N. WISHARD, of Indianapolis, read a paper on "Perineal Prostatectomy." He stated that while the prime object of prostatectomy is the removal of mechanical obstructions to urination, an object of scarcely less immediate importance is bladder-rest and drainage. For the purposes of rest and drainage, it is generally conceded that the perineal incision is easily and generally safely performed; the benefit thus obtained is, in some instances, more or less permanent, particularly when stretching the prostatic urethra accompanies perineal incision. In some instances, the length of the prostatic urethra is so greatly increased that an effort to remove obstructing tissue by an opening through the membranous urethra is attended with great and often insurmountable obstacles. McGill states that inability to reach and explore the bladder by this route exists in about thirty per cent. of all cases. Dr. Wishard reported the clinical history of and presented the specimens from two cases of lateral enlargement of the prostate in which the gland was removed through a perineal opening.

DR. KEYES stated that for the profuse hemorrhage sometimes encountered in operations upon the prostate he has devised a gauze tampon, which is drawn into the wound by means of a string passed through the urethra. A string is also attached to a button fastened to the upper surface of the pad or tampon, by which this can be withdrawn through the supra-pubic opening.

DR. BANGS referred to the value of prolonged drainage in cases of operation for enlarged prostate. He inquired as to the death-rate following operations on the gland. He related that he had been able to control severe hemorrhage in the course of operation with an iodoform-gauze tampon pressed against the wound by means of a long hemostatic clamp or sponge-holder, kept in place by the abdominal dressing.

DR. KEYES stated that the death-rate following operations on the prostate is perhaps 25 per cent.; certainly not lower than 16 per cent. Prostatectomy should be considered an emergency-operation that should not be performed if it can possibly be avoided.

DR. F. TILDEN BROWN, of New York, read a paper on "The Pathology of Urinary Fever." He discussed and classified the various theories, both physiologic and pathologic, that have been advanced in connection with the disorder.

DR. JOHN P. BRYSON, of St. Louis, read a paper entitled "Influence of Asepsis and Antisepsis on the Prophylaxis of Urethral as Distinguished from Urinary Fever." He stated that there has been a progressive diminution in the frequency of urethral fever in his practice, notwithstanding an increased number of operations. This diminution in frequency is due to changes in the technique of urethral antisepsis. The plan pursued at present is as follows: 1. When possible, some one of the urinary antiseptics is given by the mouth from twenty-four to forty-eight hours before the operation. 2. All instruments are rendered aseptic by boiling in soda solution. 3. Boracic glycerin alone is used as a lubricant. 4. Before instrumentation the foreskin is retracted and the glans and prepuce are thoroughly washed with the boro-salicylic acid solution of Thiersch. 5. The anterior urethra is also filled with this solution, and is allowed to empty itself several times. 6. The posterior urethra is likewise washed with this solution, either by over-distending the anterior urethra, or, failing in this, by means of an Ultzmann's syringe.

DR. E. L. KEYES, of New York, read a paper entitled "Failure of Diuretin to Avert Urethral Fever." He revoked the conclusion announced a year previously that diuretin appeared to have the power of averting urinary or urethral fever. Despite the free administration of the drug, and the adoption of other precautions, urinary fever has appeared and run its course. Dr. Keyes stated that he knows of no positive, certain means of averting urinary fever in every case, and he relies upon a combination of salol and diuretin, with bichloride irrigation, and warmth and rest in bed.

DR. W. FRANK GLENN, of Nashville, Tenn., read a "Further Report on the Treatment of Gonorrhea." He stated that in connection with a previous report on the treatment of gonorrhea by means of injections of chloride and iodide of zinc, the point was made that as a microscopic examination had not been made in each case, and gonococci demonstrated, many or perhaps none of the cases were instances of specific gonorrhea, and therefore the treatment might not have been as successful as the report indicated. Dr. Glenn has since collected twenty-four cases, in all of which microscopic examination was made and gonococci demonstrated. The average length of time required for a cure was sixteen and $\frac{7}{24}$ days. This average would have been still further reduced but for the fact that two of the patients included in the list neglected themselves and had sexual intercourse during the time of treatment.

CORRESPONDENCE.

"FEBRICIDE."

To the Editor of THE MEDICAL NEWS,

SIR: Referring to my paper against the use by physicians of "patent medicines," read before the Philadelphia County Medical Society (THE MEDICAL NEWS, May 14, 1892, p. 556), the manufacturers of the compound called "Febricide," which I cited as among the nostrums advertised in the *Journal of the American Medical Association*, have called my attention to the fact that they had in former years published the composition of their pills in their advertisements, and have sent me copies of such advertisements. While this does not remove the weighty therapeutic objections that hold against all ready-made combinations, the prescription of which may be highly injurious in a particular case for which the ingredients and proportions have not been specifically adjusted, and while I take no blame to myself for not hunting up advertisements some years old, it does, of course, take the preparation out of the category of secret nostrums, and frees the manufacturers from the stigma attaching to the preparation of articles belonging in this category. As I have no desire to be unjust to anyone, I make this correction.

Yours truly,

S. SOLIS-COHEN, M.D.

219 SOUTH SEVENTEENTH STREET.

THE APOTHECARY'S OATH.

To the Editor of THE MEDICAL NEWS,

SIR: While reading Boas's *History of Medicine* I found the following oath, as taken by the apothecaries of the thirteenth century: "To honor, esteem, and serve the doctors of medicine, ... to speak no evil, ... and to do everything which may contribute to the honor, reputation, embellishment, and majesty of medicine."

Is there a nineteenth-century apothecary that would show his allegiance to and dependence upon the medical profession as did these men of old? Where has progress shown itself along this line? What cares the druggist for the doctor to-day when he has the quack to back him?

The contrast is startling. Look at a drug-store to-day. Where are the drugs? Their place is taken by nostrums, soda-water fountains, and bric-a-brac, and in a back part of the store there is a small sign bearing the legend "Prescriptions Compounded." Is this not a typical example of commercialism *versus* love of mankind?

I could not refrain from sending you this short communication, as it occurred to me soon after reading one of your editorials. Respectfully,

LEWIS S. SOMERS, M.D.

1622 PARK AVENUE.

MEDICAL PRACTICE IN NEW JERSEY.

To the Editor of THE MEDICAL NEWS,

SIR: There seems to be a widespread misapprehension as to the provisions of the new law regulating the practice of medicine in New Jersey. Many of my medical friends in Philadelphia have supposed that they could not come here temporarily to prescribe for their own patients, or even respond to a summons to see a case in this State in consultation, unless regularly registered as practitioners in New Jersey. One physician now here for his health imagined that he would not be permitted to write a prescription for himself. The following article of the Act shows that the restrictions are not quite so ironclad as is generally believed, though less liberal than they should be regarding physicians licensed to practise in other States who might desire to accompany their patients here and remain with them here during a part or all of a season:

"7. And be it enacted, That this Act shall not apply to commissioned surgeons of the United States Army, Navy, or Marine-Hospital Service, *or to regularly licensed physicians or surgeons in actual consultation from other States or Territories, or to regularly licensed physicians or surgeons actually called from other States or Territories to attend cases in this State*, or to any person now entitled to practise medicine in this State."

Very truly yours,

BOARDMAN REED, M.D.

ATLANTIC CITY, N. J.

NEWS ITEMS.

The Sanitary Conditions of Florida.—The following letter and certificate will be of interest to physicians who have patients intending visiting Florida health-resorts:

WASHINGTON, D. C., June 13, 1892.

A. ANDERSON, M.D.,
FRANK FREMONT-SMITH, M.D.,
Physicians to Hotels Ponce de Leon, Alcazar, and Cordova.

GENTLEMEN: In compliance with your request I give the following statement. As the result of a careful investigation of the sanitary condition of the Hotels Ponce de Leon, Alcazar, and Cordova, in St. Augustine, Fla., and of such accounts of the cases of fever which occurred in guests of these hotels during the spring of 1892, as it has thus far been possible to obtain, I am satisfied that no one of these cases of fever was caused by the water-supply, or by the drainage of the buildings, or by anything connected with them or their surroundings. The water-supply has been examined chemically and bacteriologically, the plumbing and house-drainage of each hotel have been carefully scrutinized, the sources of milk-supply, of ice, and of fresh vegetables for the use of the guests of these hotels have been investigated, and no causes of disease have been found in any of them. There have been no cases of typhoid fever among the residents in St. Augustine during the past year, and the general sanitary condition of the town is excellent.

Between December 15, 1891, and April 25, 1892, about twenty-five cases of typhoid fever are reported as having occurred in about 25,000 persons who visited St. Augustine. Fourteen of these cases occurred among visitors while they were in the town, and eleven are said to have occurred from two to three weeks after the patients had left the town. In addition to the above, four cases are reported in hotel servants and one in a nurse. Seven of the cases in visitors while in the town were in the Hotels Ponce de Leon, Alcazar, and Cordova, and six of the cases reported in persons who had

been gone from two to three weeks, were also in guests of these three hotels. In all, therefore, out of about 16,000 guests of these hotels, thirteen are reported as having been affected with typhoid. The investigation into the details of these cases is not yet completed, and I can only say now, that it is probable that two or three of them were not typhoid fever at all; that two of them were ill on the day of their arrival, which illness became well-marked typhoid five days later, and, therefore, was not contracted at St. Augustine; and that of all the cases at the above-mentioned hotels there were among the guests but three which it would seem must have been contracted during their stay in St. Augustine. The four servants affected with typhoid probably had the specific cause introduced into their bodies through contact with a fever case, or cases, or with soiled linen from such case.

Every educated physician will understand from the above figures the extreme improbability that so few cases, scattered over a period of two months and giving a ratio of less than one to a thousand people exposed, could have been due to anything in the structure of the buildings, the general water-supply, or the food, milk, or ice—and the detailed investigation of all these things makes it practically certain that no case of typhoid was due to any of them.

Whether the investigation, now in progress, into the history of the reported cases will indicate the source of the disease is, of course, doubtful, and probably the cases had no common source, but were each contracted at a different time and in a different place; but knowing, as I do, the great interest in these Southern winter health-resorts felt by a large number of Northern invalids, it has seemed best to make this preliminary statement in order to assure them that they can make their plans for going to St. Augustine next winter with perfect confidence; that, while absolute security can be had nowhere, so long as they are there they will probably be less liable to be exposed to the contagion of typhoid fever than they will be if they remain at home.

[Signed] JOHN S. BILLINGS, M.D.,
Surgeon U. S. A.

BOARD OF HEALTH OF ST. JOHN'S COUNTY.

ST. AUGUSTINE, FLA., June 10, 1892.

We, the Board of Health of St. John's County, Florida, do hereby certify that, prior to the month of April, A. D. 1892, there were no deaths reported to this Board resulting from fever of any kind, nor does this Board have any knowledge of the existence of any case of fever in the city of St. Augustine, or St. John's County, prior to the period above mentioned; that during the month of April, A. D. 1892, the following deaths from fever were reported to this Board:

1. Florence Hawley Glover Clark, white female, aged thirty-seven years; residence, Newton, Conn.; died April 3, 1892; cause of death, typho-malarial fever; reported by F. Fremont-Smith, M.D., attending physician.

2. Elizabeth M. Park, white female, aged thirty-five years; residence, Rye, New York; died April 5, 1892; cause of death, typho-malarial fever; reported by F. Fremont-Smith, M.D., attending physician.

3. Joseph N. Knight, white male, aged thirty-four years; residence, Highwood, New Jersey; died April 14, 1892; cause of death, typho-malarial fever; reported by F. Fremont-Smith, M.D., attending physician.

4. Irene L. Davis, white female, aged twenty-six years; residence, Philadelphia, Pa., died April 17, 1892; cause of death, typhoid fever; reported by F. Fremont-Smith, M.D., attending physician.

That all of said deaths occurred in the city of St. Augustine; and that since the 17th day of April, 1892, there has been no report to this Board of death from fever of any kind.

We further certify that the rules of this Board require attending physicians to report deaths to this Board within twenty-four hours after the same occur; and that all deaths are so reported by the physicians of this county in whose practice a death may occur; that at the present time we have no knowledge of the existence of any case of fever in the city of St. Augustine, or the county of St. John's, but the certificate of practising physicians in this city and county is, in our opinion, the best evidence as to whether or not fever of any kind exists here at the present time.

We further certify that the sanitary condition and healthfulness of this city and county are very good and have never been better.

WILLIAM F. SHINE, M.D.,
President St. John's County Board of Health.
T. E. B. KERNAN.
A. J. CORBETT,
Secretary.

Dr. James S. Green, President of the New Jersey State Medical Society, died at Elizabeth on July 2.

Fischel, a distinguished psychiatrist, died at Prague, on June 4, at the age of seventy-nine.

BOOKS AND PAMPHLETS RECEIVED.

Remarks on, and Treatment of, Patients in the Skin Clinic of the Jefferson Medical College Hospital. By J. Abbott Cantrell, M.D. Reprint, 1892.

On Prevalent Therapeutic Inconsistencies in Medical Practice, Illustrated in Current Medical Literature and in Clinical Observations. By N. S. Davis, M.D., LL.D. Reprint, 1892.

Brief Comments on the Pathology of Pneumonia, and the Principles that should Guide in Its Treatment. By N. S. Davis, M.D. Reprint, 1892.

Transactions of the Southern Surgical and Gynecological Association, Fourth Session, November 10, 11, and 12, 1891. Vol. IV. Philadelphia: W. J. Dornan, 1892. Published by the Association.

Ideals of Medical Education. By John S. Billings, M.D., LL.D. Reprint, 1892.

Rare Complications of Typhoid Fever. By Edwin E. Graham, M.D. Reprint, 1892.

Two Clinical Lectures. By Edwin E. Graham, M.D. Reprint, 1892.

Transactions of the Vermont State Medical Society for the Year 1891. Burlington: Published by the Society, 1892.

Gastrostomy. By N. Senn, M.D., Ph.D. Reprint, 1892.

Report of the Board of Health of the City of Seattle for the Year 1891.

Amputation at the Hip-joint by Wyeth's Method, the Patient being Five Months Pregnant. By W. W. Keen, M.D. Reprint, 1892.

Nephrotomy for Calculous Pyelitis. By W. W. Keen, M.D., and David D. Stewart, M.D. Reprint, 1892.

Typhoid Fever in Chicago. By William T. Sedgwick, M.D., and Allen Hazen, M.D. Reprint, 1892.